Berliner
Astronomisches Jahrbuch

für

1931

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156. Jahrgang

Herausgegeben von dem

Astronomischen Rechen-Institut

Berlin
Ferd. Dümmlers Verlagsbuchhandlung
(Kommissionsverlag)
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Astronomisches Rechen-Institut

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Vorwort

Vom Jahrgang 1916 an ist der fundamentale Meridian, auf den alle Angaben des Jahrbuchs bezogen sind, der Meridian von Greenwich.

Die Zeit ist vom Jahrgang 1925 an in Welt-Zeit, d. i. Bürgerliche Zeit Greenwich, ausgedrückt (siehe Erläuterungen).

Die Grundlagen des Berliner Astronomischen Jahrbuchs bilden:

Für die Sonne und die großen Planeten:

Die Tafeln von Newcomb und (für Jupiter und Saturn) von Hill, enthalten in:

Astronomical Papers of the American Ephemeris,
Vol. VI, Part I—IV: *Tables of the four inner planets*,
Vol. VII, Part I—IV: *Tables of Jupiter*, *Saturn*, *Uranus*, *Neptune*.

Als Sonnenhalbmesser in der mittleren Entfernung ist 16′ 1″.50 angenommen; dagegen liegt der Berechnung der Finsternisse der von Auwers in A. N., Bd. 128 gegebene Wert 15′ 59″.63 zugrunde.

Für den Mond:

Tables of the Motion of the Moon by Ernest W. Brown.

Der geozentrische Mondhalbmesser $r_☾$ ist aus der Äquatorial-Horizontalparallaxe $p_☾$ gerechnet nach der Formel

$$r_☾ = 0.272469\, p_☾ + 1''.50,$$

für die Finsternisse nach $\sin r_☾ = 0.272274 \sin p_☾$.

Als Neigung des Mondäquators gegen die Ekliptik ist nach F. Hayn (A. N. Bd. 199, 263) angenommen: $J = 1°32'20''$.

Für die Fixsterne:

Neuer Fundamentalkatalog des Berliner Astronomischen Jahrbuchs nach den Grundlagen von A. Auwers, für die Epochen 1875 und 1900 bearbeitet von Dr. J. Peters (Veröffentlichung Nr. 33 des Königlichen Astronomischen Rechen-Instituts).

Die Sterngrößen sind der »Revised Harvard Photometry (Harvard Annals, vol. 50)«, die Sternspektra dem »Henry Draper Catalogue (Harvard Annals, vol. 91—99)« entnommen.

Als Werte der fundamentalen Reduktionsgrößen sind angenommen:

Die Präzessions-Größen nach S. Newcomb (vgl. H. Andoyer, Bull. Astr. 28, 67)
Die Nutations-Konstante . . . . 9″.21
Die Nutations-Größen nach S. Newcomb (Bull. Astr. 15, 241)
Die Aberrations-Konstante . . . . 20″.47
Die Sonnen-Parallaxe . . . . . . 8″.80
Die Abplattung der Erde . . . 1 : 297.0

Für die Satelliten:

Die Angaben über die 4 älteren Jupitertrabanten beruhen auf den neuen Tafeln von R. A. Sampson (*Tables of the four great Satellites of Jupiter.* London 1910), die Angaben über die 8 älteren Saturnsatelliten auf den von H. Struve ermittelten Werten (Näheres s. Erläuterungen).

In allen Ephemeriden der Sonne, der Planeten und der Fixsterne sind die kurzperiodischen, von der Mondlänge abhängigen Nutationsglieder weggelassen; doch bietet das Jahrbuch die Möglichkeit, auch diese weggelassenen Glieder zu berücksichtigen (s. Erläuterungen).

Vom vorliegenden Jahrgang an wird die Sternzeit für 0^h Welt-Zeit auf drei Dezimalen der Sekunde gegeben. Daneben ist die Nutation in Rektaszension, getrennt nach lang- und kurzperiodischen Gliedern, angeführt.

Die bisher gegebenen Größen p, q, r zur Reduktion scheinbarer Koordinatendifferenzen auf mittlere, für den Jahresanfang geltende, sind durch die Größen j und k ersetzt worden, mit denen diese Reduktion nach den Formeln auf S. 267* ausgeführt wird.

Bei den Sternbedeckungen sind genäherte Zeiten der Berührungen des Mondrandes mit Sternen für die Orte Berlin-Babelsberg, Königsberg und München aufgenommen worden. Im übrigen hat der Inhalt des Jahrbuchs gegen das Vorjahr keine Änderungen erfahren.

Bezüglich der Zahlengrundlagen sei auf die im Berliner Jahrbuch für 1916 gegebene Darstellung der »Grundbegriffe der Sphärischen Astronomie« hingewiesen.

Ein Teil der Angaben wurde seitens der American Ephemeris and Nautical Almanac, Washington, und des Nautical Almanac Office, London, zur Verfügung gestellt. Die Ephemeride des Kraters Mösting A. ist von dem Institut Astronomique in Leningrad berechnet worden.

Die Schriftleitung des Astronomischen Jahrbuchs für 1931 lag in den Händen von Herrn Kohl; an den verschiedenen Arbeiten beteiligten sich außerdem die Herren Stichtenoth † und Heinemann.

Astronomisches Rechen-Institut.

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Zeit- und Festrechnung 1931

Das Jahr 1931 entspricht dem
Jahr 6644 der Julianischen Periode und dem
Jahr 7439 — 7440 der Byzantinischen Ära

Gregorianischer Kalender

Goldene Zahl	13
Epakte	XI
Sonnenzirkel	8
Sonntagsbuchstabe	D

Septuagesima	1. Febr.
Aschermittwoch	18. Febr.
I. Quatember	25. Febr.
Ostersonntag	5. April
Himmelfahrt	14. Mai
Pfingstsonntag	24. Mai
II. Quatember	27. Mai
III. Quatember	16. Sept.
I. Advent	29. Nov.
IV. Quatember	16. Dez.

Kalender der Mohammedaner

1349 (Schaltjahr von 355 Tagen)

Ramadân	1	1931	Jan.	20
Schewwâl	1	»	Febr.	19
Dsû 'l-kade	1	»	März	20
Dsû 'l-hedsche	1	»	April	19

1350 (Gemeinjahr von 354 Tagen)

Moharrem	1	1931	Mai	19
Safar	1	»	Juni	18
Rebî-el-awwel	1	»	Juli	17
Rebî-el-accher	1	»	Aug.	16
Dschemâdi-el-awwel	1	»	Sept.	14
Dschemâdi-el-accher	1	»	Okt.	14
Redscheb	1	»	Nov.	12
Schabân	1	»	Dez.	12

Kalender der Juden

5691 (Gemeinjahr von 354 Tagen)

Schebat	1	. . . .	1931	Jan.	19
Adar	1	. . . .	»	Febr.	18
»	13	Fasten-Esther	»	März	2
»	14	Purim	»	»	3
»	15	Schuschan-Purim	»	»	4
Nisan	1	. . . .	»	»	19
»	15	*Passah-Anfang	»	April	2
»	16	*Zweites Fest	»	»	3
»	21	*Siebentes Fest	»	»	8
»	22	*Achtes Fest	»	»	9
Ijar	1	. . . .	»	»	18
»	18	Lag-B'omer	»	Mai	5
Sivan	1	. . . .	»	»	17
»	6	*Wochenfest	»	»	22
»	7	*Zweites Fest	»	»	23
Thamuz	1	. . . .	»	Juni	16
»	17	Fasten. Tempeleroberung	»	Juli	2
Ab	1	. . . .	»	»	15
»	9	Fasten. Tempelverbrennung . . .	»	»	23
Elul	1	. . . .	»	Aug.	14

5692 (Schaltjahr von 385 Tagen)

Tischri	1	*Neujahrsfest	1931	Sept.	12
»	2	*Zweites Fest	»	»	13
»	3	Fasten-Gedaljah	»	»	14
»	10	*Versöhnungsfest	»	»	21
»	15	*Laubhüttenfest	»	»	26
»	16	*Zweites Fest	»	»	27
»	21	Palmenfest	»	Okt.	2
»	22	*Laubhüttenende	»	»	3
»	23	*Gesetzesfreude	»	»	4
Marcheschwan	1	. . . .	»	»	12
Kislev	1	. . . .	»	Nov.	11
»	25	Tempelweihe	»	Dez.	5
Tebet	1	. . . .	»	»	11
»	10	Fasten. Belagerung Jerusalems . .	»	»	20

Die mit * bezeichneten Festtage werden streng gefeiert.

Astronomische Zeichen und Abkürzungen

Bezeichnung
der
Wochentage

- ☉ Sonntag
- ☾ Montag
- ♂ Dienstag
- ☿ Mittwoch
- ♃ Donnerstag
- ♀ Freitag
- ♄ Sonnabend

Adspekten

- ☌ Konjunktion
- □ Quadratur
- ☍ Opposition

Mondphasen

- ● Neumond
- ◐ Erstes Viertel
- ○ Vollmond
- ◑ Letztes Viertel

☊ Aufsteigender } Knoten
☋ Absteigender } Knoten

Zeichen
des Tierkreises und der Himmelskörper

♈ Widder . . .	0	Grad		
♉ Stier	30	»	☉	Sonne
♊ Zwillinge . .	60	»	☾	Mond
♋ Krebs	90	»	☿	Merkur
♌ Löwe	120	»	♀	Venus
♍ Jungfrau . .	150	»	♁	Erde
♎ Wage	180	»	♂	Mars
♏ Skorpion . .	210	»	♃	Jupiter
♐ Schütze . . .	240	»	♄	Saturn
♑ Steinbock . .	270	»	♅	Uranus
♒ Wassermann	300	»	♆	Neptun
♓ Fische . . .	330	»		

Sonne, Mond, Große Planeten

1931

Tag	Wochentag	Zeitgleichung Mittlere Zeit *minus* Wahre Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
		0h Welt-Zeit							
1931		m s	s	h m s	m s	° ' "	' "	s	' "
Jan. 0	Mi	+ 2 37.43	28.79	18 37 24.47	4 25.35	−23 10 18.4	4 11.3	71.12	16 17.85
1	Do	3 6.22	28.48	18 41 49.82	4 25.03	23 6 7.1	4 38.8	71.09	16 17.87
2	Fr	3 34.70	28.16	18 46 14.85	4 24.72	23 1 28.3	5 6.4	71.05	16 17.88
3	Sa	4 2.86	27.80	18 50 39.57	4 24.36	22 56 21.9	5 33.8	71.00	16 17.89
4	St	4 30.66	27.42	18 55 3.93	4 23.98	22 50 48.1	6 1.0	70.96	16 17.89
5	Mo	4 58.08	27.02	18 59 27.91	4 23.57	22 44 47.1	6 28.0	70.90	16 17.88
6	Di	+ 5 25.10	26.59	19 3 51.48	4 23.15	−22 38 19.1	6 54.8	70.84	16 17.87
7	Mi	5 51.69	26.14	19 8 14.63	4 22.70	22 31 24.3	7 21.5	70.78	16 17.85
8	Do	6 17.83	25.66	19 12 37.33	4 22.23	22 24 2.8	7 48.0	70.72	16 17.82
9	Fr	6 43.49	25.17	19 16 59.56	4 21.73	22 16 14.8	8 14.2	70.65	16 17.79
10	Sa	7 8.66	24.66	19 21 21.29	4 21.21	22 8 0.6	8 40.3	70.57	16 17.75
11	St	7 33.32	24.11	19 25 42.50	4 20.67	21 59 20.3	9 6.0	70.50	16 17.71
12	Mo	+ 7 57.43	23.54	19 30 3.17	4 20.10	−21 50 14.3	9 31.5	70.43	16 17.66
13	Di	8 20.97	22.95	19 34 23.27	4 19.51	21 40 42.8	9 56.9	70.34	16 17.60
14	Mi	8 43.92	22.33	19 38 42.78	4 18.89	21 30 45.9	10 21.8	70.26	16 17.54
15	Do	9 6.25	21.69	19 43 1.67	4 18.25	21 20 24.1	10 46.5	70.17	16 17.48
16	Fr	9 27.94	21.03	19 47 19.92	4 17.59	21 9 37.6	11 10.9	70.08	16 17.42
17	Sa	9 48.97	20.35	19 51 37.51	4 16.91	20 58 26.7	11 35.0	69.98	16 17.34
18	St	+10 9.32	19.65	19 55 54.42	4 16.20	−20 46 51.7	11 58.7	69.89	16 17.27
19	Mo	10 28.97	18.92	20 0 10.62	4 15.48	20 34 53.0	12 22.2	69.79	16 17.19
20	Di	10 47.89	18.18	20 4 26.10	4 14.74	20 22 30.8	12 45.2	69.69	16 17.11
21	Mi	11 6.07	17.43	20 8 40.84	4 13.98	20 9 45.6	13 7.8	69.59	16 17.03
22	Do	11 23.50	16.65	20 12 54.82	4 13.21	19 56 37.8	13 30.2	69.48	16 16.94
23	Fr	11 40.15	15.86	20 17 8.03	4 12.42	19 43 7.6	13 52.2	69.38	16 16.85
24	Sa	+11 56.01	15.07	20 21 20.45	4 11.62	−19 29 15.4	14 13.7	69.28	16 16.75
25	St	12 11.08	14.25	20 25 32.07	4 10.82	19 15 1.7	14 34.9	69.17	16 16.65
26	Mo	12 25.33	13.45	20 29 42.89	4 10.00	19 0 26.8	14 55.7	69.06	16 16.54
27	Di	12 38.78	12.62	20 33 52.89	4 9.17	18 45 31.1	15 16.0	68.94	16 16.44
28	Mi	12 51.40	11.79	20 38 2.06	4 8.35	18 30 15.1	15 36.1	68.83	16 16.32
29	Do	13 3.19	10.95	20 42 10.41	4 7.51	18 14 39.0	15 55.7	68.72	16 16.20
30	Fr	+13 14.14	10.13	20 46 17.92	4 6.68	−17 58 43.3	16 14.9	68.61	16 16.08
31	Sa	13 24.27	9.29	20 50 24.60	4 5.85	17 42 28.4	16 33.6	68.49	16 15.95
Febr. 1	St	13 33.56	8.46	20 54 30.45	4 5.02	17 25 54.8	16 52.1	68.38	16 15.82
2	Mo	13 42.02	7.64	20 58 35.47	4 4.20	17 9 2.7	17 10.2	68.26	16 15.68
3	Di	13 49.66	6.82	21 2 39.67	4 3.37	16 51 52.5	17 27.8	68.14	16 15.53
4	Mi	13 56.48	6.01	21 6 43.04	4 2.57	16 34 24.7	17 45.1	68.03	16 15.38
5	Do	+14 2.49	5.20	21 10 45.61	4 1.76	−16 16 39.6	18 1.9	67.91	16 15.22
6	Fr	14 7.69	4.41	21 14 47.37	4 0.96	15 58 37.7	18 18.5	67.80	16 15.06
7	Sa	14 12.10	3.62	21 18 48.33	4 0.18	15 40 19.2	18 34.6	67.69	16 14.89
8	St	14 15.72	2.84	21 22 48.51	3 59.40	15 21 44.6	18 50.3	67.57	16 14.72
9	Mo	14 18.56	2.07	21 26 47.91	3 58.63	15 2 54.3	19 5.6	67.46	16 14.54
10	Di	+14 20.63		21 30 46.54		−14 43 48.7		67.35	16 14.36

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge	Diff.	Breite	log R	Diff.	Aufgang	Untergang
	0h Welt-Zeit									in {+50° Breite, 0h Länge}	
1931	2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
Jan. 0	341.5	6 34 47.038	−324	−19	278 35 56.0	61 8.4	+0.43	9.992 6768	82	7 59	16 7
1	342.5	6 38 43.597	320	−18	279 37 4.4	61 8.2	+0.54	9.992 6686	55	7 59	16 8
2	343.5	6 42 40.156	316	−14	280 38 12.6	61 8.2	+0.63	9.992 6631	27	7 59	16 9
3	344.5	6 46 36.715	313	− 8	281 39 20.8	61 8.1	+0.71	9.992 6604	$\overline{2}$	7 59	16 10
4	345.5	6 50 33.274	309	0	282 40 28.9	61 8.0	+0.76	9.992 6606	31	7 59	16 11
5	346.5	6 54 29.833	305	+ 7	283 41 36.9	61 7.9	+0.79	9.992 6637	60	7 58	16 12
6	347.5	6 58 26.391	−302	+13	284 42 44.8	61 8.0	+0.78	9.992 6697	89	7 58	16 13
7	348.5	7 2 22.950	299	+15	285 43 52.8	61 8.0	+0.73	9.992 6786	118	7 58	16 14
8	349.5	7 6 19.509	295	+14	286 45 0.8	61 8.0	+0.66	9.992 6904	145	7 58	16 16
9	350.5	7 10 16.068	292	+ 9	287 46 8.8	61 8.1	+0.57	9.992 7049	170	7 57	16 17
10	351.5	7 14 12.626	289	+ 3	288 47 16.9	61 8.2	+0.45	9.992 7219	195	7 57	16 18
11	352.5	7 18 9.185	285	− 4	289 48 25.1	61 8.2	+0.32	9.992 7414	218	7 56	16 20
12	353.5	7 22 5.744	−282	− 9	290 49 33.3	61 8.1	+0.19	9.992 7632	239	7 56	16 21
13	354.5	7 26 2.302	279	−11	291 50 41.4	61 8.1	+0.06	9.992 7871	259	7 55	16 22
14	355.5	7 29 58.860	276	−10	292 51 49.5	61 7.9	−0.04	9.992 8130	278	7 54	16 24
15	356.5	7 33 55.419	273	− 6	293 52 57.4	61 7.6	−0.13	9.992 8408	295	7 54	16 25
16	357.5	7 37 51.977	270	− 1	294 54 5.0	61 7.3	−0.20	9.992 8703	312	7 53	16 27
17	358.5	7 41 48.535	267	+ 5	295 55 12.3	61 6.8	−0.25	9.992 9015	329	7 52	16 28
18	359.5	7 45 45.093	−265	+10	296 56 19.1	61 6.4	−0.26	9.992 9344	345	7 51	16 30
19	360.5	7 49 41.651	263	+13	297 57 25.5	61 5.7	−0.25	9.992 9689	362	7 50	16 31
20	361.5	7 53 38.209	260	+15	298 58 31.2	61 5.0	−0.21	9.993 0051	377	7 49	16 33
21	362.5	7 57 34.767	257	+13	299 59 36.2	61 4.3	−0.14	9.993 0428	394	7 48	16 34
22	363.5	8 1 31.324	255	+10	301 0 40.5	61 3.4	−0.05	9.993 0822	411	7 47	16 36
23	364.5	8 5 27.882	253	+ 4	302 1 43.9	61 2.5	+0.05	9.993 1233	428	7 46	16 38
24	365.5	8 9 24.440	−250	− 2	303 2 46.4	61 1.5	+0.17	9.993 1661	447	7 45	16 39
25	366.5	8 13 20.997	248	− 9	304 3 47.9	61 0.4	+0.29	9.993 2108	465	7 44	16 41
26	367.5	8 17 17.555	246	−15	305 4 48.3	60 59.3	+0.42	9.993 2573	485	7 43	16 43
27	368.5	8 21 14.112	244	−18	306 5 47.6	60 58.1	+0.54	9.993 3058	505	7 42	16 44
28	369.5	8 25 10.669	242	−19	307 6 45.7	60 56.9	+0.65	9.993 3563	526	7 41	16 46
29	370.5	8 29 7.226	241	−17	308 7 42.6	60 55.7	+0.75	9.993 4089	549	7 40	16 48
30	371.5	8 33 3.783	−239	−11	309 8 38.3	60 54.5	+0.83	9.993 4638	573	7 38	16 49
31	372.5	8 37 0.340	237	− 4	310 9 32.8	60 53.3	+0.88	9.993 5211	597	7 37	16 51
Febr. 1	373.5	8 40 56.897	236	+ 4	311 10 26.1	60 52.0	+0.90	9.993 5808	623	7 35	16 53
2	374.5	8 44 53.453	235	+10	312 11 18.1	60 50.9	+0.89	9.993 6431	649	7 34	16 54
3	375.5	8 48 50.010	233	+14	313 12 9.0	60 49.8	+0.84	9.993 7080	675	7 32	16 56
4	376.5	8 52 46.566	232	+14	314 12 58.8	60 48.7	+0.77	9.993 7755	701	7 31	16 58
5	377.5	8 56 43.123	−231	+11	315 13 47.5	60 47.7	+0.67	9.993 8456	725	7 30	17 0
6	378.5	9 0 39.679	231	+ 5	316 14 35.2	60 46.7	+0.55	9.993 9181	749	7 28	17 1
7	379.5	9 4 36.235	230	− 1	317 15 21.9	60 45.7	+0.42	9.993 9930	771	7 26	17 3
8	380.5	9 8 32.792	229	− 7	318 16 7.6	60 44.8	+0.29	9.994 0701	791	7 25	17 5
9	381.5	9 12 29.348	228	−10	319 16 52.4	60 43.8	+0.16	9.994 1492	809	7 23	17 6
10	382.5	9 16 25.903	−228	−10	320 17 36.2		+0.04	9.994 2301		7 22	17 8

Sonne 1931

Tag	Wochentag	0ʰ Welt-Zeit: Zeitgleichung (Mittlere Zeit *minus* Wahre Zeit)		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1931		m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Febr. 10	Di	+14 20.63	1.30	21 30 46.54	3 57.85	−14 43 48.7	19 20.6	67.35	16 14.36
11	Mi	14 21.93	0.54	21 34 44.39	3 57.09	14 24 28.1	19 35.1	67.24	16 14.17
12	Do	14 22.47	0.22	21 38 41.48	3 56.34	14 4 53.0	19 49.1	67.13	16 13.98
13	Fr	14 22.25	0.96	21 42 37.82	3 55.59	13 45 3.9	20 2.9	67.02	16 13.79
14	Sa	14 21.29	1.71	21 46 33.41	3 54.85	13 25 1.0	20 16.0	66.90	16 13.60
15	St	14 19.58	2.44	21 50 28.26	3 54.12	13 4 45.0	20 28.8	66.80	16 13.40
16	Mo	+14 17.14	3.16	21 54 22.38	3 53.39	−12 44 16.2	20 41.2	66.69	16 13.20
17	Di	14 13.98	3.87	21 58 15.77	3 52.68	12 23 35.0	20 53.2	66.59	16 13.00
18	Mi	14 10.11	4.58	22 2 8.45	3 51.97	12 2 41.8	21 4.6	66.49	16 12.79
19	Do	14 5.53	5.28	22 6 0.42	3 51.28	11 41 37.2	21 15.7	66.39	16 12.59
20	Fr	14 0.25	5.97	22 9 51.70	3 50.60	11 20 21.5	21 26.3	66.29	16 12.38
21	Sa	13 54.28	6.63	22 13 42.30	3 49.92	10 58 55.2	21 36.5	66.19	16 12.17
22	St	+13 47.65	7.29	22 17 32.22	3 49.26	−10 37 18.7	21 46.2	66.10	16 11.96
23	Mo	13 40.36	7.94	22 21 21.48	3 48.62	10 15 32.5	21 55.6	66.01	16 11.74
24	Di	13 32.42	8.57	22 25 10.10	3 47.98	9 53 36.9	22 4.4	65.92	16 11.52
25	Mi	13 23.85	9.18	22 28 58.08	3 47.37	9 31 32.5	22 13.0	65.83	16 11.30
26	Do	13 14.67	9.79	22 32 45.45	3 46.77	9 9 19.5	22 21.0	65.75	16 11.08
27	Fr	13 4.88	10.37	22 36 32.22	3 46.19	8 46 58.5	22 28.7	65.66	16 10.85
28	Sa	+12 54.51	10.93	22 40 18.41	3 45.62	− 8 24 29.8	22 36.0	65.58	16 10.63
März 1	St	12 43.58	11.48	22 44 4.03	3 45.07	8 1 53.8	22 42.8	65.49	16 10.39
2	Mo	12 32.10	12.00	22 47 49.10	3 44.56	7 39 11.0	22 49.3	65.42	16 10.16
3	Di	12 20.10	12.50	22 51 33.66	3 44.05	7 16 21.7	22 55.5	65.35	16 9.92
4	Mi	12 7.60	12.97	22 55 17.71	3 43.58	6 53 26.2	23 1.2	65.28	16 9.68
5	Do	11 54.63	13.43	22 59 1.29	3 43.13	6 30 25.0	23 6.7	65.21	16 9.43
6	Fr	+11 41.20	13.86	23 2 44.42	3 42.69	− 6 7 18.3	23 11.7	65.14	16 9.18
7	Sa	11 27.34	14.26	23 6 27.11	3 42.29	5 44 6.6	23 16.5	65.08	16 8.92
8	St	11 13.08	14.65	23 10 9.40	3 41.91	5 20 50.1	23 20.8	65.02	16 8.67
9	Mo	10 58.43	15.01	23 13 51.31	3 41.54	4 57 29.3	23 24.8	64.97	16 8.41
10	Di	10 43.42	15.35	23 17 32.85	3 41.20	4 34 4.5	23 28.4	64.91	16 8.14
11	Mi	10 28.07	15.68	23 21 14.05	3 40.88	4 10 36.1	23 31.7	64.86	16 7.88
12	Do	+10 12.39	15.97	23 24 54.93	3 40.58	− 3 47 4.4	23 34.6	64.81	16 7.61
13	Fr	9 56.42	16.26	23 28 35.51	3 40.29	3 23 29.8	23 37.1	64.76	16 7.34
14	Sa	9 40.16	16.53	23 32 15.80	3 40.03	2 59 52.7	23 39.1	64.72	16 7.08
15	St	9 23.63	16.77	23 35 55.83	3 39.78	2 36 13.6	23 40.9	64.68	16 6.81
16	Mo	9 6.86	17.01	23 39 35.61	3 39.55	2 12 32.7	23 42.2	64.64	16 6.53
17	Di	8 49.85	17.21	23 43 15.16	3 39.34	1 48 50.5	23 43.2	64.61	16 6.26
18	Mi	+ 8 32.64	17.41	23 46 54.50	3 39.14	− 1 25 7.3	23 43.7	64.58	16 5.99
19	Do	8 15.23	17.59	23 50 33.64	3 38.97	1 1 23.6	23 43.8	64.55	16 5.72
20	Fr	7 57.64	17.74	23 54 12.61	3 38.81	0 37 39.8	23 43.6	64.53	16 5.45
21	Sa	7 39.90	17.88	23 57 51.42	3 38.67	− 0 13 56.2	23 43.0	64.51	16 5.18
22	St	7 22.02	18.01	0 1 30.09	3 38.55	+ 0 9 46.8	23 41.9	64.49	16 4.91
23	Mo	+ 7 4.01		0 5 8.64		+ 0 33 28.7		64.47	16 4.64

Tag	Julian. Zeit	Sternzeit (0h Welt-Zeit)	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge		Breite	log R		Aufgang in +50° Breite 0h Länge	Untergang in +50° Breite 0h Länge
1931	2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
Febr. 10	382.5	9 16 25.903	−228	−10	320 17 36.2	60 42.8	+0.04	9.994 2301	827	7 22	17 8
11	383.5	9 20 22.459	227	− 7	321 18 19.0	60 41.7	−0.05	9.994 3128	842	7 20	17 10
12	384.5	9 24 19.015	227	− 2	322 19 0.7	60 40.5	−0.13	9.994 3970	856	7 18	17 12
13	385.5	9 28 15.571	226	+ 4	323 19 41.2	60 39.3	−0.18	9.994 4826	869	7 16	17 13
14	386.5	9 32 12.127	226	+10	324 20 20.5	60 38.1	−0.20	9.994 5695	881	7 15	17 15
15	387.5	9 36 8.682	226	+13	325 20 58.6	60 36.8	−0.19	9.994 6576	892	7 13	17 17
16	388.5	9 40 5.237	−226	+15	326 21 35.4	60 35.4	−0.15	9.994 7468	903	7 11	17 18
17	389.5	9 44 1.792	226	+15	327 22 10.8	60 33.8	−0.09	9.994 8371	912	7 9	17 20
18	390.5	9 47 58.347	226	+12	328 22 44.6	60 32.3	−0.01	9.994 9283	923	7 7	17 22
19	391.5	9 51 54.902	227	+ 6	329 23 16.9	60 30.6	+0.09	9.995 0206	931	7 5	17 24
20	392.5	9 55 51.458	227	0	330 23 47.5	60 29.0	+0.21	9.995 1137	942	7 4	17 25
21	393.5	9 59 48.012	228	− 7	331 24 16.5	60 27.2	+0.33	9.995 2079	952	7 2	17 27
22	394.5	10 3 44.567	−228	−13	332 24 43.7	60 25.4	+0.45	9.995 3031	962	7 0	17 29
23	395.5	10 7 41.122	229	−17	333 25 9.1	60 23.4	+0.58	9.995 3993	972	6 58	17 30
24	396.5	10 11 37.677	230	−19	334 25 32.5	60 21.6	+0.69	9.995 4965	984	6 56	17 32
25	397.5	10 15 34.231	230	−18	335 25 54.1	60 19.5	+0.79	9.995 5949	995	6 54	17 34
26	398.5	10 19 30.786	231	−13	336 26 13.6	60 17.5	+0.87	9.995 6944	1009	6 52	17 35
27	399.5	10 23 27.340	232	− 7	337 26 31.1	60 15.5	+0.92	9.995 7953	1022	6 50	17 37
28	400.5	10 27 23.895	−233	+ 1	338 26 46.6	60 13.5	+0.95	9.995 8975	1038	6 48	17 39
März 1	401.5	10 31 20.449	234	+ 7	339 27 0.1	60 11.5	+0.94	9.996 0013	1054	6 46	17 40
2	402.5	10 35 17.003	235	+12	340 27 11.6	60 9.5	+0.89	9.996 1067	1070	6 44	17 42
3	403.5	10 39 13.557	236	+13	341 27 21.1	60 7.5	+0.82	9.996 2137	1088	6 42	17 44
4	404.5	10 43 10.111	237	+11	342 27 28.6	60 5.7	+0.72	9.996 3225	1106	6 40	17 45
5	405.5	10 47 6.666	239	+ 6	343 27 34.3	60 3.9	+0.59	9.996 4331	1123	6 38	17 47
6	406.5	10 51 3.220	−240	0	344 27 38.2	60 2.1	+0.45	9.996 5454	1138	6 36	17 49
7	407.5	10 54 59.774	242	− 6	345 27 40.3	60 0.5	+0.31	9.996 6592	1154	6 33	17 50
8	408.5	10 58 56.327	243	− 9	346 27 40.8	59 58.8	+0.17	9.996 7746	1168	6 31	17 52
9	409.5	11 2 52.881	244	−10	347 27 39.6	59 57.2	+0.04	9.996 8914	1179	6 29	17 54
10	410.5	11 6 49.435	246	− 8	348 27 36.8	59 55.6	−0.07	9.997 0093	1188	6 27	17 55
11	411.5	11 10 45.989	247	− 3	349 27 32.4	59 53.9	−0.15	9.997 1281	1197	6 25	17 57
12	412.5	11 14 42.543	−249	+ 3	350 27 26.3	59 52.3	−0.21	9.997 2478	1203	6 23	17 58
13	413.5	11 18 39.097	251	+ 9	351 27 18.6	59 50.6	−0.24	9.997 3681	1209	6 20	18 0
14	414.5	11 22 35.651	252	+13	352 27 9.2	59 48.9	−0.25	9.997 4890	1213	6 18	18 2
15	415.5	11 26 32.205	254	+16	353 26 58.1	59 47.0	−0.22	9.997 6103	1216	6 16	18 3
16	416.5	11 30 28.758	256	+16	354 26 45.1	59 45.3	−0.17	9.997 7319	1217	6 14	18 5
17	417.5	11 34 25.312	257	+13	355 26 30.4	59 43.3	−0.08	9.997 8536	1218	6 12	18 6
18	418.5	11 38 21.865	−259	+ 9	356 26 13.7	59 41.4	+0.02	9.997 9754	1219	6 10	18 8
19	419.5	11 42 18.419	261	+ 3	357 25 55.1	59 39.5	+0.13	9.998 0973	1218	6 8	18 10
20	420.5	11 46 14.972	263	− 4	358 25 34.6	59 37.4	+0.25	9.998 2191	1218	6 5	18 11
21	421.5	11 50 11.526	264	−10	359 25 12.0	59 35.3	+0.37	9.998 3409	1217	6 3	18 13
22	422.5	11 54 8.080	266	−15	0 24 47.3	59 33.1	+0.49	9.998 4626	1216	6 1	18 14
23	423.5	11 58 4.633	−268	−18	1 24 20.4		+0.61	9.998 5842		5 59	18 16

Sonne 1931

Tag	Wochentag	0ʰ Welt-Zeit							
		Zeitgleichung Mittlere Zeit *minus* Wahre Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1931		m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
März 23	Mo	+7 4.01	18.11	0 5 8.64	3 38.44	+0 33 28.7	23 40.6	64.47	16 4.64
24	Di	6 45.90	18.20	0 8 47.08	3 38.36	0 57 9.3	23 38.8	64.46	16 4.37
25	Mi	6 27.70	18.27	0 12 25.44	3 38.29	1 20 48.1	23 36.6	64.45	16 4.10
26	Do	6 9.43	18.32	0 16 3.73	3 38.23	1 44 24.7	23 34.1	64.44	16 3.83
27	Fr	5 51.11	18.35	0 19 41.96	3 38.20	2 7 58.8	23 31.3	64.44	16 3.56
28	Sa	5 32.76	18.36	0 23 20.16	3 38.19	2 31 30.1	23 27.9	64.44	16 3.29
29	St	+5 14.40	18.35	0 26 58.35	3 38.20	+2 54 58.0	23 24.4	64.44	16 3.02
30	Mo	4 56.05	18.33	0 30 36.55	3 38.23	3 18 22.4	23 20.4	64.45	16 2.75
31	Di	4 37.72	18.27	0 34 14.78	3 38.29	3 41 42.8	23 16.2	64.46	16 2.48
April 1	Mi	4 19.45	18.19	0 37 53.07	3 38.36	4 4 59.0	23 11.7	64.46	16 2.20
2	Do	4 1.26	18.09	0 41 31.43	3 38.46	4 28 10.7	23 6.7	64.48	16 1.93
3	Fr	3 43.17	17.97	0 45 9.89	3 38.58	4 51 17.4	23 1.6	64.50	16 1.65
4	Sa	+3 25.20	17.82	0 48 48.47	3 38.73	+5 14 19.0	22 56.1	64.52	16 1.37
5	St	3 7.38	17.65	0 52 27.20	3 38.91	5 37 15.1	22 50.2	64.54	16 1.10
6	Mo	2 49.73	17.46	0 56 6.11	3 39.10	6 0 5.3	22 44.2	64.57	16 0.82
7	Di	2 32.27	17.25	0 59 45.21	3 39.31	6 22 49.5	22 37.7	64.60	16 0.54
8	Mi	2 15.02	17.01	1 3 24.52	3 39.54	6 45 27.2	22 30.9	64.63	16 0.25
9	Do	1 58.01	16.76	1 7 4.06	3 39.79	7 7 58.1	22 23.8	64.66	15 59.97
10	Fr	+1 41.25	16.50	1 10 43.85	3 40.06	+7 30 21.9	22 16.4	64.70	15 59.69
11	Sa	1 24.75	16.21	1 14 23.91	3 40.34	7 52 38.3	22 8.5	64.74	15 59.42
12	St	1 8.54	15.91	1 18 4.25	3 40.64	8 14 46.8	22 0.3	64.78	15 59.14
13	Mo	0 52.63	15.60	1 21 44.89	3 40.96	8 36 47.1	21 51.9	64.82	15 58.86
14	Di	0 37.03	15.27	1 25 25.85	3 41.28	8 58 39.0	21 42.9	64.86	15 58.59
15	Mi	0 21.76	14.92	1 29 7.13	3 41.63	9 20 21.9	21 33.7	64.91	15 58.31
16	Do	+0 6.84	14.57	1 32 48.76	3 41.99	+9 41 55.6	21 24.2	64.96	15 58.04
17	Fr	−0 7.73	14.20	1 36 30.75	3 42.35	10 3 19.8	21 14.2	65.01	15 57.77
18	Sa	0 21.93	13.82	1 40 13.10	3 42.74	10 24 34.0	21 3.9	65.06	15 57.51
19	St	0 35.75	13.43	1 43 55.84	3 43.13	10 45 37.9	20 53.2	65.12	15 57.24
20	Mo	0 49.18	13.03	1 47 38.97	3 43.53	11 6 31.1	20 42.2	65.18	15 56.98
21	Di	1 2.21	12.61	1 51 22.50	3 43.94	11 27 13.3	20 30.9	65.24	15 56.73
22	Mi	−1 14.82	12.19	1 55 6.44	3 44.36	+11 47 44.2	20 19.1	65.31	15 56.47
23	Do	1 27.01	11.76	1 58 50.80	3 44.80	12 8 3.3	20 7.0	65.37	15 56.22
24	Fr	1 38.77	11.32	2 2 35.60	3 45.23	12 28 10.3	19 54.6	65.44	15 55.97
25	Sa	1 50.09	10.86	2 6 20.83	3 45.69	12 48 4.9	19 41.9	65.51	15 55.72
26	St	2 0.95	10.40	2 10 6.52	3 46.15	13 7 46.8	19 28.8	65.58	15 55.47
27	Mo	2 11.35	9.93	2 13 52.67	3 46.63	13 27 15.6	19 15.4	65.65	15 55.23
28	Di	−2 21.28	9.45	2 17 39.30	3 47.11	+13 46 31.0	19 1.8	65.72	15 54.99
29	Mi	2 30.73	8.95	2 21 26.41	3 47.61	14 5 32.8	18 47.7	65.80	15 54.75
30	Do	2 39.68	8.44	2 25 14.02	3 48.12	14 24 20.5	18 33.5	65.87	15 54.51
Mai 1	Fr	2 48.12	7.91	2 29 2.14	3 48.64	14 42 54.0	18 18.9	65.95	15 54.27
2	Sa	2 56.03	7.38	2 32 50.78	3 49.17	15 1 12.9	18 4.1	66.02	15 54.03
3	St	−3 3.41		2 36 39.95		+15 19 17.0		66.09	15 53.79

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge		Breite	log R		Aufgang	Untergang
	0h Welt-Zeit									in {+50° Breite, 0h Länge}	
1931	2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
März 23	423.5	11 58 4.633	−268	−18	1 24 20.4	59 30.9	+0.61	9.998 5842	1215	5 59	18 16
24	424.5	12 2 1.187	270	−18	2 23 51.3	59 28.7	+0.72	9.998 7057	1214	5 57	18 18
25	425.5	12 5 57.741	271	−15	3 23 20.0	59 26.4	+0.80	9.998 8271	1215	5 54	18 19
26	426.5	12 9 54.294	273	− 9	4 22 46.4	59 24.1	+0.86	9.998 9486	1216	5 52	18 21
27	427.5	12 13 50.848	275	− 2	5 22 10.5	59 21.7	+0.89	9.999 0702	1217	5 50	18 22
28	428.5	12 17 47.401	277	+ 5	6 21 32.2	59 19.4	+0.89	9.999 1919	1220	5 48	18 24
29	429.5	12 21 43.955	−278	+10	7 20 51.6	59 17.0	+0.85	9.999 3139	1224	5 46	18 25
30	430.5	12 25 40.509	280	+12	8 20 8.6	59 14.7	+0.78	9.999 4363	1229	5 44	18 27
31	431.5	12 29 37.062	282	+11	9 19 23.3	59 12.4	+0.68	9.999 5592	1234	5 41	18 28
April 1	432.5	12 33 33.616	283	+ 7	10 18 35.7	59 10.3	+0.56	9.999 6826	1241	5 39	18 30
2	433.5	12 37 30.170	285	+ 1	11 17 46.0	59 8.2	+0.43	9.999 8067	1248	5 37	18 32
3	434.5	12 41 26.724	286	− 6	12 16 54.2	59 6.1	+0.29	9.999 9315	1254	5 35	18 33
4	435.5	12 45 23.278	−288	−10	13 16 0.3	59 4.2	+0.14	0.000 0569	1260	5 33	18 35
5	436.5	12 49 19.832	289	−11	14 15 4.5	59 2.3	0.00	0.000 1829	1264	5 30	18 36
6	437.5	12 53 16.386	290	−10	15 14 6.8	59 0.5	−0.12	0.000 3093	1267	5 28	18 38
7	438.5	12 57 12.940	291	− 5	16 13 7.3	58 58.7	−0.22	0.000 4360	1269	5 26	18 39
8	439.5	13 1 9.494	293	+ 1	17 12 6.0	58 56.9	−0.29	0.000 5629	1268	5 24	18 41
9	440.5	13 5 6.048	294	+ 7	18 11 2.9	58 55.2	−0.34	0.000 6897	1267	5 22	18 43
10	441.5	13 9 2.602	−295	+13	19 9 58.1	58 53.5	−0.35	0.000 8164	1263	5 20	18 44
11	442.5	13 12 59.157	296	+16	20 8 51.6	58 51.8	−0.34	0.000 9427	1258	5 18	18 46
12	443.5	13 16 55.711	297	+17	21 7 43.4	58 49.9	−0.29	0.001 0685	1252	5 16	18 47
13	444.5	13 20 52.265	298	+15	22 6 33.3	58 48.2	−0.22	0.001 1937	1245	5 14	18 49
14	445.5	13 24 48.820	299	+11	23 5 21.5	58 46.4	−0.14	0.001 3182	1236	5 12	18 50
15	446.5	13 28 45.374	300	+ 6	24 4 7.9	58 44.5	−0.03	0.001 4418	1228	5 10	18 52
16	447.5	13 32 41.929	−301	− 1	25 2 52.4	58 42.7	+0.09	0.001 5646	1217	5 8	18 54
17	448.5	13 36 38.483	302	− 8	26 1 35.1	58 40.8	+0.22	0.001 6863	1206	5 5	18 55
18	449.5	13 40 35.038	302	−13	27 0 15.9	58 38.8	+0.34	0.001 8069	1195	5 3	18 57
19	450.5	13 44 31.593	303	−17	27 58 54.7	58 36.9	+0.45	0.001 9264	1183	5 1	18 58
20	451.5	13 48 28.147	304	−18	28 57 31.6	58 34.8	+0.56	0.002 0447	1171	4 59	19 0
21	452.5	13 52 24.702	304	−15	29 56 6.4	58 32.8	+0.65	0.002 1618	1159	4 57	19 1
22	453.5	13 56 21.257	−305	−10	30 54 39.2	58 30.7	+0.72	0.002 2777	1147	4 55	19 3
23	454.5	14 0 17.812	305	− 4	31 53 9.9	58 28.5	+0.75	0.002 3924	1137	4 53	19 4
24	455.5	14 4 14.367	305	+ 4	32 51 38.4	58 26.4	+0.76	0.002 5061	1127	4 51	19 6
25	456.5	14 8 10.923	305	+ 9	33 50 4.8	58 24.2	+0.73	0.002 6188	1118	4 50	19 8
26	457.5	14 12 7.478	305	+12	34 48 29.0	58 22.0	+0.67	0.002 7306	1110	4 48	19 9
27	458.5	14 16 4.033	305	+12	35 46 51.0	58 19.9	+0.58	0.002 8416	1103	4 46	19 11
28	459.5	14 20 0.589	−305	+ 8	36 45 10.9	58 17.9	+0.47	0.002 9519	1098	4 44	19 12
29	460.5	14 23 57.144	305	+ 2	37 43 28.8	58 15.8	+0.34	0.003 0617	1093	4 42	19 14
30	461.5	14 27 53.700	305	− 4	38 41 44.6	58 13.9	+0.19	0.003 1710	1088	4 40	19 15
Mai 1	462.5	14 31 50.256	304	−10	39 39 58.5	58 12.0	+0.04	0.003 2798	1085	4 38	19 17
2	463.5	14 35 46.811	304	−12	40 38 10.5	58 10.2	−0.11	0.003 3883	1082	4 37	19 18
3	464.5	14 39 43.367	−304	−12	41 36 20.7		−0.24	0.003 4965		4 35	19 20

Tag		Wochentag	0h Welt-Zeit							
			Zeitgleichung Mittlere Zeit *minus* Wahre Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1931			m s	s	h m s	m s	° ' "	' "	s	' "
Mai	3	St	−3 3.41	6.84	2 36 39.95	3 49.72	+15 19 17.0	17 48.9	66.09	15 53.79
	4	Mo	3 10.25	6.28	2 40 29.67	3 50.27	15 37 5.9	17 33.6	66.17	15 53.55
	5	Di	3 16.53	5.72	2 44 19.94	3 50.84	15 54 39.5	17 17.8	66.25	15 53.32
	6	Mi	3 22.25	5.14	2 48 10.78	3 51.42	16 11 57.3	17 1.8	66.33	15 53.08
	7	Do	3 27.39	4.56	2 52 2.20	3 52.00	16 28 59.1	16 45.5	66.42	15 52.85
	8	Fr	3 31.95	3.97	2 55 54.20	3 52.58	16 45 44.6	16 28.9	66.50	15 52.62
	9	Sa	−3 35.92	3.39	2 59 46.78	3 53.17	+17 2 13.5	16 11.9	66.58	15 52.39
	10	St	3 39.31	2.80	3 3 39.95	3 53.75	17 18 25.4	15 54.7	66.66	15 52.17
	11	Mo	3 42.11	2.21	3 7 33.70	3 54.35	17 34 20.1	15 37.2	66.74	15 51.95
	12	Di	3 44.32	1.62	3 11 28.05	3 54.94	17 49 57.3	15 19.3	66.82	15 51.73
	13	Mi	3 45.94	1.03	3 15 22.99	3 55.53	18 5 16.6	15 1.2	66.91	15 51.51
	14	Do	3 46.97	0.44	3 19 18.52	3 56.11	18 20 17.8	14 42.7	66.99	15 51.30
	15	Fr	−3 47.41	0.14	3 23 14.63	3 56.70	+18 35 0.5	14 24.0	67.07	15 51.09
	16	Sa	3 47.27	0.72	3 27 11.33	3 57.27	18 49 24.5	14 4.9	67.15	15 50.89
	17	St	3 46.55	1.28	3 31 8.60	3 57.84	19 3 29.4	13 45.5	67.23	15 50.69
	18	Mo	3 45.27	1.84	3 35 6.44	3 58.40	19 17 14.9	13 25.9	67.32	15 50.50
	19	Di	3 43.43	2.40	3 39 4.84	3 58.96	19 30 40.8	13 6.0	67.40	15 50.31
	20	Mi	3 41.03	2.94	3 43 3.80	3 59.50	19 43 46.8	12 45.8	67.48	15 50.12
	21	Do	−3 38.09	3.47	3 47 3.30	4 0.03	+19 56 32.6	12 25.3	67.56	15 49.94
	22	Fr	3 34.62	3.99	3 51 3.33	4 0.55	20 8 57.9	12 4.6	67.63	15 49.76
	23	Sa	3 30.63	4.51	3 55 3.88	4 1.05	20 21 2.5	11 43.6	67.71	15 49.59
	24	St	3 26.12	5.00	3 59 4.93	4 1.56	20 32 46.1	11 22.4	67.78	15 49.42
	25	Mo	3 21.12	5.49	4 3 6.49	4 2.05	20 44 8.5	11 1.0	67.85	15 49.26
	26	Di	3 15.63	5.97	4 7 8.54	4 2.53	20 55 9.5	10 39.3	67.92	15 49.10
	27	Mi	−3 9.66	6.43	4 11 11.07	4 2.99	+21 5 48.8	10 17.4	67.99	15 48.94
	28	Do	3 3.23	6.89	4 15 14.06	4 3.45	21 16 6.2	9 55.4	68.06	15 48.78
	29	Fr	2 56.34	7.35	4 19 17.51	4 3.90	21 26 1.6	9 33.2	68.13	15 48.63
	30	Sa	2 48.99	7.78	4 23 21.41	4 4.34	21 35 34.8	9 10.7	68.19	15 48.48
	31	St	2 41.21	8.22	4 27 25.75	4 4.78	21 44 45.5	8 48.1	68.25	15 48.33
Juni	1	Mo	2 32.99	8.64	4 31 30.53	4 5.20	21 53 33.6	8 25.4	68.31	15 48.19
	2	Di	−2 24.35	9.04	4 35 35.73	4 5.60	+22 1 59.0	8 2.4	68.37	15 48.04
	3	Mi	2 15.31	9.45	4 39 41.33	4 6.00	22 10 1.4	7 39.3	68.43	15 47.90
	4	Do	2 5.86	9.83	4 43 47.33	4 6.39	22 17 40.7	7 16.0	68.48	15 47.77
	5	Fr	1 56.03	10.19	4 47 53.72	4 6.75	22 24 56.7	6 52.6	68.53	15 47.63
	6	Sa	1 45.84	10.54	4 52 0.47	4 7.10	22 31 49.3	6 29.0	68.58	15 47.50
	7	St	1 35.30	10.88	4 56 7.57	4 7.44	22 38 18.3	6 5.2	68.63	15 47.38
	8	Mo	−1 24.42	11.19	5 0 15.01	4 7.75	+22 44 23.5	5 41.4	68.67	15 47.25
	9	Di	1 13.23	11.49	5 4 22.76	4 8.04	22 50 4.9	5 17.3	68.71	15 47.13
	10	Mi	1 1.74	11.75	5 8 30.80	4 8.32	22 55 22.2	4 53.2	68.74	15 47.02
	11	Do	0 49.99	12.01	5 12 39.12	4 8.56	23 0 15.4	4 28.9	68.77	15 46.91
	12	Fr	0 37.98	12.23	5 16 47.68	4 8.79	23 4 44.3	4 4.6	68.80	15 46.80
	13	Sa	−0 25.75		5 20 56.47		+23 8 48.9		68.83	15 46.70

Tag		0h Welt-Zeit									Aufgang	Untergang
		Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge		Mittleres Äquinoktium 1931.0 Breite	log R		in {+50° Breite, 0h Länge}	
1931		2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
Mai	3	464.5	14 39 43.367	—304	—12	41 36 20.7	58 8.6	—0.24	0.003 4965	1077	4 35	19 20
	4	465.5	14 43 39.923	303	— 8	42 34 29.3	58 7.0	—0.35	0.003 6042	1072	4 33	19 21
	5	466.5	14 47 36.479	302	— 2	43 32 36.3	58 5.5	—0.42	0.003 7114	1066	4 31	19 23
	6	467.5	14 51 33.036	301	+ 5	44 30 41.8	58 4.1	—0.47	0.003 8180	1058	4 30	19 24
	7	468.5	14 55 29.592	300	+11	45 28 45.9	58 2.6	—0.50	0.003 9238	1049	4 28	19 26
	8	469.5	14 59 26.148	299	+15	46 26 48.5	58 1.3	—0.49	0.004 0287	1038	4 26	19 28
	9	470.5	15 3 22.705	—298	+17	47 24 49.8	57 59.9	—0.46	0.004 1325	1027	4 25	19 29
	10	471.5	15 7 19.261	297	+16	48 22 49.7	57 58.6	—0.40	0.004 2352	1013	4 23	19 30
	11	472.5	15 11 15.818	296	+12	49 20 48.3	57 57.3	—0.32	0.004 3365	998	4 22	19 32
	12	473.5	15 15 12.374	295	+ 7	50 18 45.6	57 56.0	—0.22	0.004 4363	983	4 20	19 33
	13	474.5	15 19 8.931	293	+ 1	51 16 41.6	57 54.6	—0.10	0.004 5346	967	4 18	19 35
	14	475.5	15 23 5.488	292	— 6	52 14 36.2	57 53.3	+0.01	0.004 6313	949	4 17	19 36
	15	476.5	15 27 2.045	—290	—12	53 12 29.5	57 52.0	+0.13	0.004 7262	930	4 16	19 38
	16	477.5	15 30 58.602	289	—15	54 10 21.5	57 50.6	+0.25	0.004 8192	910	4 14	19 39
	17	478.5	15 34 55.159	287	—17	55 8 12.1	57 49.2	+0.35	0.004 9102	890	4 13	19 40
	18	479.5	15 38 51.716	285	—15	56 6 1.3	57 47.7	+0.44	0.004 9992	870	4 11	19 42
	19	480.5	15 42 48.273	283	—11	57 3 49.0	57 46.3	+0.50	0.005 0862	849	4 10	19 43
	20	481.5	15 46 44.831	281	— 5	58 1 35.3	57 44.8	+0.55	0.005 1711	829	4 9	19 44
	21	482.5	15 50 41.388	—279	+ 2	58 59 20.1	57 43.3	+0.56	0.005 2540	809	4 8	19 46
	22	483.5	15 54 37.945	277	+ 9	59 57 3.4	57 41.7	+0.54	0.005 3349	789	4 6	19 47
	23	484.5	15 58 34.503	275	+12	60 54 45.1	57 40.2	+0.49	0.005 4138	771	4 5	19 48
	24	485.5	16 2 31.060	273	+13	61 52 25.3	57 38.6	+0.42	0.005 4909	754	4 4	19 50
	25	486.5	16 6 27.618	271	+10	62 50 3.9	57 37.0	+0.31	0.005 5663	738	4 3	19 51
	26	487.5	16 10 24.176	268	+ 4	63 47 40.9	57 35.6	+0.18	0.005 6401	724	4 2	19 52
	27	488.5	16 14 20.733	—266	— 2	64 45 16.5	57 34.0	+0.03	0.005 7125	710	4 1	19 53
	28	489.5	16 18 17.291	263	— 9	65 42 50.5	57 32.7	—0.11	0.005 7835	697	4 0	19 55
	29	490.5	16 22 13.849	261	—12	66 40 23.2	57 31.4	—0.25	0.005 8532	685	3 59	19 56
	30	491.5	16 26 10.407	258	—13	67 37 54.6	57 30.2	—0.39	0.005 9217	675	3 58	19 57
	31	492.5	16 30 6.965	256	—10	68 35 24.8	57 29.1	—0.50	0.005 9892	663	3 57	19 58
Juni	1	493.5	16 34 3.523	253	— 5	69 32 53.9	57 28.0	—0.58	0.006 0555	652	3 56	19 59
	2	494.5	16 38 0.081	—250	+ 2	70 30 21.9	57 27.1	—0.64	0.006 1207	641	3 56	20 0
	3	495.5	16 41 56.640	247	+ 9	71 27 49.0	57 26.3	—0.67	0.006 1848	627	3 55	20 1
	4	496.5	16 45 53.198	244	+13	72 25 15.3	57 25.5	—0.68	0.006 2475	614	3 54	20 2
	5	497.5	16 49 49.756	241	+17	73 22 40.8	57 24.8	—0.65	0.006 3089	599	3 54	20 3
	6	498.5	16 53 46.314	239	+17	74 20 5.6	57 24.2	—0.59	0.006 3688	583	3 53	20 4
	7	499.5	16 57 42.873	236	+13	75 17 29.8	57 23.5	—0.51	0.006 4271	565	3 53	20 5
	8	500.5	17 1 39.431	—233	+ 9	76 14 53.3	57 22.9	—0.42	0.006 4836	547	3 52	20 6
	9	501.5	17 5 35.990	229	+ 2	77 12 16.2	57 22.4	—0.32	0.006 5383	528	3 52	20 6
	10	502.5	17 9 32.548	226	— 4	78 9 38.6	57 21.9	—0.21	0.006 5911	507	3 51	20 7
	11	503.5	17 13 29.107	223	—10	79 7 0.5	57 21.4	—0.09	0.006 6418	486	3 51	20 8
	12	504.5	17 17 25.665	220	—15	80 4 21.9	57 20.8	+0.03	0.006 6904	463	3 51	20 8
	13	505.5	17 21 22.223	—217	—17	81 1 42.7		+0.13	0.006 7367		3 50	20 9

Tag	Wochentag	0ʰ Welt-Zeit: Zeitgleichung Mittlere Zeit *minus* Wahre Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1931		m s	s	h m s	m s	° ' "	' "	s	' "
Juni 13	Sa	−0 25.75	12.44	5 20 56.47	4 9.00	+23 8 48.9	3 40.0	68.83	15 46.70
14	St	0 13.31	12.61	5 25 5.47	4 9.17	23 12 28.9	3 15.5	68.86	15 46.60
15	Mo	−0 0.70	12.76	5 29 14.64	4 9.32	23 15 44.4	2 50.9	68.89	15 46.51
16	Di	+0 12.06	12.89	5 33 23.96	4 9.44	23 18 35.3	2 26.2	68.91	15 46.43
17	Mi	0 24.95	12.98	5 37 33.40	4 9.54	23 21 1.5	2 1.4	68.92	15 46.35
18	Do	0 37.93	13.05	5 41 42.94	4 9.61	23 23 2.9	1 36.6	68.93	15 46.28
19	Fr	+0 50.98	13.08	5 45 52.55	4 9.64	+23 24 39.5	1 11.8	68.94	15 46.21
20	Sa	1 4.06	13.09	5 50 2.19	4 9.65	23 25 51.3	0 46.9	68.94	15 46.15
21	St	1 17.15	13.08	5 54 11.84	4 9.64	23 26 38.2	0 22.1	68.94	15 46.09
22	Mo	1 30.23	13.03	5 58 21.48	4 9.59	23 27 0.3	0 2.8	68.94	15 46.04
23	Di	1 43.26	12.97	6 2 31.07	4 9.53	23 26 57.5	0 27.5	68.93	15 45.99
24	Mi	1 56.23	12.88	6 6 40.60	4 9.44	23 26 30.0	0 52.3	68.92	15 45.94
25	Do	+2 9.11	12.77	6 10 50.04	4 9.33	+23 25 37.7	1 17.1	68.91	15 45.91
26	Fr	2 21.88	12.64	6 14 59.37	4 9.20	23 24 20.6	1 41.7	68.90	15 45.87
27	Sa	2 34.52	12.49	6 19 8.57	4 9.04	23 22 38.9	2 6.4	68.89	15 45.84
28	St	2 47.01	12.32	6 23 17.61	4 8.88	23 20 32.5	2 30.9	68.87	15 45.81
29	Mo	2 59.33	12.13	6 27 26.49	4 8.69	23 18 1.6	2 55.4	68.84	15 45.78
30	Di	3 11.46	11.93	6 31 35.18	4 8.49	23 15 6.2	3 19.8	68.82	15 45.76
Juli 1	Mi	+3 23.39	11.71	6 35 43.67	4 8.26	+23 11 46.4	3 44.1	68.79	15 45.74
2	Do	3 35.10	11.46	6 39 51.93	4 8.02	23 8 2.3	4 8.4	68.75	15 45.73
3	Fr	3 46.56	11.20	6 43 59.95	4 7.77	23 3 53.9	4 32.5	68.71	15 45.71
4	Sa	3 57.76	10.93	6 48 7.72	4 7.48	22 59 21.4	4 56.5	68.67	15 45.70
5	St	4 8.69	10.63	6 52 15.20	4 7.19	22 54 24.9	5 20.5	68.63	15 45.70
6	Mo	4 19.32	10.32	6 56 22.39	4 6.87	22 49 4.4	5 44.3	68.59	15 45.70
7	Di	+4 29.64	9.98	7 0 29.26	4 6.54	+22 43 20.1	6 8.0	68.55	15 45.70
8	Mi	4 39.62	9.63	7 4 35.80	4 6.19	22 37 12.1	6 31.6	68.49	15 45.71
9	Do	4 49.25	9.26	7 8 41.99	4 5.82	22 30 40.5	6 54.9	68.44	15 45.72
10	Fr	4 58.51	8.87	7 12 47.81	4 5.43	22 23 45.6	7 18.2	68.38	15 45.73
11	Sa	5 7.38	8.46	7 16 53.24	4 5.02	22 16 27.4	7 41.3	68.32	15 45.75
12	St	5 15.84	8.04	7 20 58.26	4 4.60	22 8 46.1	8 4.2	68.26	15 45.78
13	Mo	+5 23.88	7.60	7 25 2.86	4 4.15	+22 0 41.9	8 26.9	68.20	15 45.81
14	Di	5 31.48	7.13	7 29 7.01	4 3.69	21 52 15.0	8 49.4	68.14	15 45.85
15	Mi	5 38.61	6.64	7 33 10.70	4 3.21	21 43 25.6	9 11.8	68.07	15 45.89
16	Do	5 45.25	6.15	7 37 13.91	4 2.70	21 34 13.8	9 33.8	68.00	15 45.94
17	Fr	5 51.40	5.63	7 41 16.61	4 2.18	21 24 40.0	9 55.7	67.92	15 45.99
18	Sa	5 57.03	5.09	7 45 18.79	4 1.65	21 14 44.3	10 17.4	67.85	15 46.05
19	St	+6 2.12	4.54	7 49 20.44	4 1.10	+21 4 26.9	10 38.7	67.78	15 46.11
20	Mo	6 6.66	3.97	7 53 21.54	4 0.53	20 53 48.2	10 59.9	67.70	15 46.18
21	Di	6 10.63	3.40	7 57 22.07	3 59.96	20 42 48.3	11 20.7	67.62	15 46.26
22	Mi	6 14.03	2.82	8 1 22.03	3 59.38	20 31 27.6	11 41.3	67.54	15 46.34
23	Do	6 16.85	2.23	8 5 21.41	3 58.78	20 19 46.3	12 1.7	67.46	15 46.42
24	Fr	+6 19.08		8 9 20.19		+20 7 44.6		67.39	15 46.51

Tag	0ʰ Welt-Zeit									Aufgang	Untergang
	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge		Breite	log *R*		in {+50° Breite, 0ʰ Länge}	
1931	2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
Juni 13	505.5	17 21 22.223	−217	−17	81 1 42.7	57 20.3	+0.13	0.006 7367	439	3 50	20 9
14	506.5	17 25 18.782	214	−17	81 59 3.0	57 19.8	+0.23	0.006 7806	415	3 50	20 10
15	507.5	17 29 15.341	210	−13	82 56 22.8	57 19.2	+0.30	0.006 8221	390	3 50	20 10
16	508.5	17 33 11.899	207	− 7	83 53 42.0	57 18.6	+0.34	0.006 8611	363	3 50	20 11
17	509.5	17 37 8.458	204	0	84 51 0.6	57 18.0	+0.35	0.006 8974	338	3 50	20 11
18	510.5	17 41 5.017	200	+ 7	85 48 18.6	57 17.4	+0.34	0.006 9312	313	3 50	20 12
19	511.5	17 45 1.576	−197	+12	86 45 36.0	57 16.6	+0.31	0.006 9625	288	3 50	20 12
20	512.5	17 48 58.134	194	+14	87 42 52.6	57 16.0	+0.24	0.006 9913	264	3 50	20 12
21	513.5	17 52 54.693	190	+12	88 40 8.6	57 15.2	+0.14	0.007 0177	240	3 50	20 12
22	514.5	17 56 51.252	187	+ 7	89 37 23.8	57 14.5	+0.02	0.007 0417	220	3 50	20 13
23	515.5	18 0 47.810	184	+ 1	90 34 38.3	57 13.8	−0.12	0.007 0637	199	3 51	20 13
24	516.5	18 4 44.369	181	− 6	91 31 52.1	57 13.2	−0.26	0.007 0836	181	3 51	20 13
25	517.5	18 8 40.928	−177	−11	92 29 5.3	57 12.6	−0.40	0.007 1017	163	3 51	20 13
26	518.5	18 12 37.486	174	−13	93 26 17.9	57 12.1	−0.53	0.007 1180	147	3 52	20 13
27	519.5	18 16 34.045	170	−12	94 23 30.0	57 11.6	−0.64	0.007 1327	131	3 52	20 13
28	520.5	18 20 30.604	167	− 7	95 20 41.6	57 11.3	−0.73	0.007 1458	117	3 52	20 13
29	521.5	18 24 27.162	164	− 1	96 17 52.9	57 11.0	−0.80	0.007 1575	103	3 53	20 13
30	522.5	18 28 23.721	161	+ 6	97 15 3.9	57 10.9	−0.83	0.007 1678	88	3 53	20 13
Juli 1	523.5	18 32 20.280	−157	+12	98 12 14.8	57 10.8	−0.83	0.007 1766	73	3 54	20 13
2	524.5	18 36 16.838	154	+15	99 9 25.6	57 10.9	−0.80	0.007 1839	58	3 55	20 12
3	525.5	18 40 13.397	151	+16	100 6 36.5	57 11.0	−0.75	0.007 1897	42	3 55	20 12
4	526.5	18 44 9.955	148	+15	101 3 47.5	57 11.1	−0.67	0.007 1939	26	3 56	20 12
5	527.5	18 48 6.513	145	+10	102 0 58.6	57 11.3	−0.58	0.007 1965	8	3 57	20 11
6	528.5	18 52 3.072	142	+ 4	102 58 9.9	57 11.6	−0.48	0.007 1973	11	3 58	20 11
7	529.5	18 55 59.630	−139	− 2	103 55 21.5	57 12.0	−0.37	0.007 1962	30	3 58	20 10
8	530.5	18 59 56.188	136	− 9	104 52 33.5	57 12.3	−0.25	0.007 1932	51	3 59	20 10
9	531.5	19 3 52.747	133	−13	105 49 45.8	57 12.7	−0.13	0.007 1881	71	4 0	20 9
10	532.5	19 7 49.305	130	−17	106 46 58.5	57 13.2	−0.03	0.007 1810	94	4 1	20 9
11	533.5	19 11 45.863	127	−17	107 44 11.7	57 13.6	+0.07	0.007 1716	118	4 2	20 8
12	534.5	19 15 42.422	124	−15	108 41 25.3	57 14.0	+0.15	0.007 1598	142	4 3	20 7
13	535.5	19 19 38.980	−121	−10	109 38 39.3	57 14.4	+0.20	0.007 1456	167	4 4	20 6
14	536.5	19 23 35.538	119	− 2	110 35 53.7	57 14.8	+0.22	0.007 1289	193	4 5	20 6
15	537.5	19 27 32.096	116	+ 4	111 33 8.5	57 15.2	+0.21	0.007 1096	220	4 6	20 5
16	538.5	19 31 28.654	113	+10	112 30 23.7	57 15.6	+0.18	0.007 0876	247	4 7	20 4
17	539.5	19 35 25.212	111	+13	113 27 39.3	57 15.8	+0.11	0.007 0629	273	4 8	20 3
18	540.5	19 39 21.770	108	+13	114 24 55.1	57 16.0	+0.02	0.007 0356	298	4 9	20 2
19	541.5	19 43 18.328	−106	+10	115 22 11.1	57 16.3	−0.10	0.007 0058	322	4 10	20 1
20	542.5	19 47 14.886	103	+ 4	116 19 27.4	57 16.5	−0.23	0.006 9736	346	4 12	20 0
21	543.5	19 51 11.443	101	− 3	117 16 43.9	57 16.8	−0.38	0.006 9390	367	4 13	19 59
22	544.5	19 55 8.001	99	− 9	118 14 0.7	57 17.0	−0.52	0.006 9023	388	4 14	19 58
23	545.5	19 59 4.558	97	−12	119 11 17.7	57 17.2	−0.64	0.006 8635	405	4 15	19 56
24	546.5	20 3 1.116	− 94	−12	120 8 34.9		−0.75	0.006 8230		4 17	19 55

Tag		Wochentag	0h Welt-Zeit							
			Zeitgleichung Mittlere Zeit *minus* Wahre Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
1931			m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Juli	24	Fr	+6 19.08	1.62	8 9 20.19	3 58.19	+20 7 44.6	12 21.8	67.39	15 46.51
	25	Sa	6 20.70	1.03	8 13 18.38	3 57.58	19 55 22.8	12 41.6	67.31	15 46.60
	26	St	6 21.73	0.43	8 17 15.96	3 56.99	19 42 41.2	13 1.2	67.23	15 46.70
	27	Mo	6 22.16	0.18	8 21 12.95	3 56.38	19 29 40.0	13 20.5	67.14	15 46.80
	28	Di	6 21.98	0.78	8 25 9.33	3 55.77	19 16 19.5	13 39.6	67.06	15 46.90
	29	Mi	6 21.20	1.38	8 29 5.10	3 55.18	19 2 39.9	13 58.4	66.97	15 47.01
	30	Do	+6 19.82	1.98	8 33 0.28	3 54.57	+18 48 41.5	14 16.9	66.88	15 47.11
	31	Fr	6 17.84	2.58	8 36 54.85	3 53.97	18 34 24.6	14 35.2	66.80	15 47.22
Aug.	1	Sa	6 15.26	3.18	8 40 48.82	3 53.38	18 19 49.4	14 53.3	66.71	15 47.34
	2	St	6 12.08	3.78	8 44 42.20	3 52.78	18 4 56.1	15 11.0	66.62	15 47.45
	3	Mo	6 8.30	4.37	8 48 34.98	3 52.19	17 49 45.1	15 28.5	66.54	15 47.57
	4	Di	6 3.93	4.95	8 52 27.17	3 51.61	17 34 16.6	15 45.7	66.45	15 47.70
	5	Mi	+5 58.98	5.54	8 56 18.78	3 51.01	+17 18 30.9	16 2.6	66.36	15 47.82
	6	Do	5 53.44	6.12	9 0 9.79	3 50.44	17 2 28.3	16 19.2	66.28	15 47.95
	7	Fr	5 47.32	6.70	9 4 0.23	3 49.86	16 46 9.1	16 35.6	66.19	15 48.09
	8	Sa	5 40.62	7.28	9 7 50.09	3 49.28	16 29 33.5	16 51.6	66.10	15 48.23
	9	St	5 33.34	7.84	9 11 39.37	3 48.71	16 12 41.9	17 7.4	66.02	15 48.37
	10	Mo	5 25.50	8.41	9 15 28.08	3 48.15	15 55 34.5	17 22.9	65.93	15 48.51
	11	Di	+5 17.09	8.97	9 19 16.23	3 47.58	+15 38 11.6	17 38.0	65.85	15 48.66
	12	Mi	5 8.12	9.53	9 23 3.81	3 47.03	15 20 33.6	17 52.8	65.77	15 48.82
	13	Do	4 58.59	10.09	9 26 50.84	3 46.47	15 2 40.8	18 7.3	65.69	15 48.98
	14	Fr	4 48.50	10.64	9 30 37.31	3 45.91	14 44 33.5	18 21.4	65.60	15 49.14
	15	Sa	4 37.86	11.19	9 34 23.22	3 45.37	14 26 12.1	18 35.2	65.52	15 49.31
	16	St	4 26.67	11.73	9 38 8.59	3 44.82	14 7 36.9	18 48.7	65.44	15 49.49
	17	Mo	+4 14.94	12.27	9 41 53.41	3 44.28	+13 48 48.2	19 1.8	65.36	15 49.67
	18	Di	4 2.67	12.80	9 45 37.69	3 43.76	13 29 46.4	19 14.5	65.29	15 49.86
	19	Mi	3 49.87	13.32	9 49 21.45	3 43.23	13 10 31.9	19 27.0	65.21	15 50.05
	20	Do	3 36.55	13.83	9 53 4.68	3 42.73	12 51 4.9	19 39.0	65.14	15 50.24
	21	Fr	3 22.72	14.33	9 56 47.41	3 42.22	12 31 25.9	19 50.9	65.07	15 50.43
	22	Sa	3 8.39	14.81	10 0 29.63	3 41.75	12 11 35.0	20 2.3	65.00	15 50.63
	23	St	+2 53.58	15.28	10 4 11.38	3 41.28	+11 51 32.7	20 13.4	64.94	15 50.84
	24	Mo	2 38.30	15.73	10 7 52.66	3 40.82	11 31 19.3	20 24.3	64.87	15 51.04
	25	Di	2 22.57	16.17	10 11 33.48	3 40.39	11 10 55.0	20 34.9	64.81	15 51.25
	26	Mi	2 6.40	16.58	10 15 13.87	3 39.97	10 50 20.1	20 45.1	64.75	15 51.46
	27	Do	1 49.82	16.98	10 18 53.84	3 39.58	10 29 35.0	20 55.1	64.69	15 51.67
	28	Fr	1 32.84	17.36	10 22 33.42	3 39.19	10 8 39.9	21 4.7	64.63	15 51.88
	29	Sa	+1 15.48	17.72	10 26 12.61	3 38.83	+ 9 47 35.2	21 14.0	64.58	15 52.10
	30	St	0 57.76	18.07	10 29 51.44	3 38.49	9 26 21.2	21 23.1	64.52	15 52.31
	31	Mo	0 39.69	18.39	10 33 29.93	3 38.16	9 4 58.1	21 31.9	64.46	15 52.53
Sept.	1	Di	0 21.30	18.70	10 37 8.09	3 37.85	8 43 26.2	21 40.4	64.41	15 52.75
	2	Mi	+0 2.60	18.99	10 40 45.94	3 37.57	8 21 45.8	21 48.5	64.37	15 52.97
	3	Do	−0 16.39		10 44 23.51		+ 7 59 57.3		64.33	15 53.19

Tag		Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge	Diff.	Breite	log R	Diff.	Aufgang in +50° Breite 0h Länge	Untergang in +50° Breite 0h Länge
1931		2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
Juli	24	546.5	20 3 1.116	−94	−12	120 8 34.9	57 17.5	−0.75	0.006 8230	423	4 17	19 55
	25	547.5	20 6 57.673	92	− 8	121 5 52.4	57 18.0	−0.84	0.006 7807	438	4 18	19 54
	26	548.5	20 10 54.230	91	− 2	122 3 10.4	57 18.5	−0.91	0.006 7369	453	4 19	19 53
	27	549.5	20 14 50.787	89	+ 4	123 0 28.9	57 19.0	−0.94	0.006 6916	468	4 20	19 51
	28	550.5	20 18 47.345	87	+10	123 57 47.9	57 19.7	−0.94	0.006 6448	481	4 22	19 50
	29	551.5	20 22 43.902	85	+15	124 55 7.6	57 20.4	−0.90	0.006 5967	494	4 23	19 49
	30	552.5	20 26 40.459	−83	+17	125 52 28.0	57 21.2	−0.85	0.006 5473	507	4 25	19 47
	31	553.5	20 30 37.016	82	+15	126 49 49.2	57 22.2	−0.77	0.006 4966	521	4 26	19 46
Aug.	1	554.5	20 34 33.573	80	+12	127 47 11.4	57 23.1	−0.68	0.006 4445	535	4 27	19 44
	2	555.5	20 38 30.129	79	+ 6	128 44 34.5	57 24.2	−0.57	0.006 3910	549	4 29	19 43
	3	556.5	20 42 26.686	78	0	129 41 58.7	57 25.3	−0.45	0.006 3361	563	4 30	19 41
	4	557.5	20 46 23.242	77	− 7	130 39 24.0	57 26.4	−0.33	0.006 2798	579	4 32	19 40
	5	558.5	20 50 19.799	−75	−13	131 36 50.4	57 27.6	−0.21	0.006 2219	596	4 33	19 38
	6	559.5	20 54 16.356	74	−17	132 34 18.0	57 29.0	−0.10	0.006 1623	612	4 34	19 36
	7	560.5	20 58 12.912	73	−18	133 31 47.0	57 30.2	0.00	0.006 1011	630	4 36	19 35
	8	561.5	21 2 9.469	72	−17	134 29 17.2	57 31.5	+0.08	0.006 0381	649	4 37	19 33
	9	562.5	21 6 6.025	71	−12	135 26 48.7	57 32.9	+0.13	0.005 9732	669	4 39	19 31
	10	563.5	21 10 2.581	70	− 6	136 24 21.6	57 34.2	+0.16	0.005 9063	690	4 40	19 29
	11	564.5	21 13 59.137	−70	+ 1	137 21 55.8	57 35.6	+0.16	0.005 8373	711	4 42	19 28
	12	565.5	21 17 55.693	69	+ 8	138 19 31.4	57 36.9	+0.13	0.005 7662	734	4 43	19 26
	13	566.5	21 21 52.249	69	+12	139 17 8.3	57 38.1	+0.08	0.005 6928	758	4 45	19 24
	14	567.5	21 25 48.805	68	+13	140 14 46.4	57 39.3	−0.01	0.005 6170	780	4 46	19 22
	15	568.5	21 29 45.360	68	+10	141 12 25.7	57 40.5	−0.14	0.005 5390	803	4 48	19 20
	16	569.5	21 33 41.915	68	+ 6	142 10 6.2	57 41.6	−0.27	0.005 4587	824	4 49	19 18
	17	570.5	21 37 38.471	−68	− 1	143 7 47.8	57 42.7	−0.41	0.005 3763	846	4 51	19 17
	18	571.5	21 41 35.026	68	− 7	144 5 30.5	57 43.8	−0.55	0.005 2917	864	4 52	19 15
	19	572.5	21 45 31.582	68	−10	145 3 14.3	57 44.8	−0.68	0.005 2053	882	4 54	19 13
	20	573.5	21 49 28.137	68	−12	146 0 59.1	57 45.8	−0.79	0.005 1171	897	4 55	19 11
	21	574.5	21 53 24.692	68	− 9	146 58 44.9	57 47.0	−0.88	0.005 0274	912	4 57	19 9
	22	575.5	21 57 21.248	68	− 4	147 56 31.9	57 48.1	−0.94	0.004 9362	924	4 58	19 7
	23	576.5	22 1 17.803	−68	+ 3	148 54 20.0	57 49.3	−0.98	0.004 8438	935	5 0	19 5
	24	577.5	22 5 14.358	68	+10	149 52 9.3	57 50.5	−0.98	0.004 7503	946	5 1	19 3
	25	578.5	22 9 10.913	69	+14	150 49 59.8	57 51.9	−0.95	0.004 6557	954	5 3	19 1
	26	579.5	22 13 7.467	70	+17	151 47 51.7	57 53.3	−0.90	0.004 5603	963	5 4	18 59
	27	580.5	22 17 4.022	70	+17	152 45 45.0	57 54.8	−0.82	0.004 4640	971	5 6	18 57
	28	581.5	22 21 0.577	71	+13	153 43 39.8	57 56.4	−0.73	0.004 3669	979	5 7	18 55
	29	582.5	22 24 57.131	−72	+ 9	154 41 36.2	57 57.9	−0.61	0.004 2690	986	5 8	18 53
	30	583.5	22 28 53.686	72	+ 2	155 39 34.1	57 59.7	−0.49	0.004 1704	994	5 10	18 51
	31	584.5	22 32 50.241	73	− 4	156 37 33.8	58 1.4	−0.37	0.004 0710	1001	5 12	18 48
Sept.	1	585.5	22 36 46.795	74	−10	157 35 35.2	58 3.2	−0.24	0.003 9709	1010	5 13	18 46
	2	586.5	22 40 43.350	75	−15	158 33 38.4	58 5.1	−0.12	0.003 8699	1018	5 14	18 44
	3	587.5	22 44 39.904	−76	−18	159 31 43.5		−0.01	0.003 7681		5 16	18 42

Tag	Wochentag	0h Welt-Zeit: Zeitgleichung Mittlere Zeit *minus* Wahre Zeit (m s)	Diff. (s)	Scheinbare Rektaszension (h m s)	Diff. (m s)	Scheinbare Deklination (° ′ ″)	Diff. (′ ″)	Halbe Durchgangs-Dauer St.-Zt. (s)	Halbmesser (′ ″)
1931 Sept. 3	Do	— 0 16.39	19.26	10 44 23.51	3 37.30	+7 59 57.3	21 56.3	64.33	15 53.19
4	Fr	0 35.65	19.51	10 48 0.81	3 37.04	7 38 1.0	22 3.8	64.29	15 53.42
5	Sa	0 55.16	19.74	10 51 37.85	3 36.81	7 15 57.2	22 11.1	64.25	15 53.65
6	St	1 14.90	19.96	10 55 14.66	3 36.59	6 53 46.1	22 18.0	64.21	15 53.88
7	Mo	1 34.86	20.16	10 58 51.25	3 36.40	6 31 28.1	22 24.6	64.18	15 54.11
8	Di	1 55.02	20.33	11 2 27.65	3 36.22	6 9 3.5	22 30.8	64.15	15 54.34
9	Mi	— 2 15.35	20.50	11 6 3.87	3 36.06	+5 46 32.7	22 36.7	64.13	15 54.58
10	Do	2 35.85	20.64	11 9 39.93	3 35.91	5 23 56.0	22 42.3	64.10	15 54.82
11	Fr	2 56.49	20.78	11 13 15.84	3 35.77	5 1 13.7	22 47.4	64.07	15 55.07
12	Sa	3 17.27	20.90	11 16 51.61	3 35.66	4 38 26.3	22 52.3	64.05	15 55.32
13	St	3 38.17	21.01	11 20 27.27	3 35.55	4 15 34.0	22 56.8	64.04	15 55.57
14	Mo	3 59.18	21.09	11 24 2.82	3 35.46	3 52 37.2	23 0.8	64.03	15 55.82
15	Di	— 4 20.27	21.16	11 27 38.28	3 35.39	+3 29 36.4	23 4.6	64.02	15 56.08
16	Mi	4 41.43	21.22	11 31 13.67	3 35.33	3 6 31.8	23 8.0	64.01	15 56.34
17	Do	5 2.65	21.26	11 34 49.00	3 35.29	2 43 23.8	23 10.9	64.01	15 56.61
18	Fr	5 23.91	21.28	11 38 24.29	3 35.28	2 20 12.9	23 13.6	64.01	15 56.87
19	Sa	5 45.19	21.28	11 41 59.57	3 35.28	1 56 59.3	23 16.0	64.01	15 57.14
20	St	6 6.47	21.25	11 45 34.85	3 35.30	1 33 43.3	23 18.0	64.01	15 57.41
21	Mo	— 6 27.72	21.21	11 49 10.15	3 35.34	+1 10 25.3	23 19.6	64.02	15 57.68
22	Di	6 48.93	21.15	11 52 45.49	3 35.41	0 47 5.7	23 21.0	64.03	15 57.95
23	Mi	7 10.08	21.05	11 56 20.90	3 35.50	0 23 44.7	23 22.1	64.04	15 58.23
24	Do	7 31.13	20.94	11 59 56.40	3 35.62	+0 0 22.6	23 22.8	64.06	15 58.50
25	Fr	7 52.07	20.80	12 3 32.02	3 35.75	—0 23 0.2	23 23.2	64.08	15 58.77
26	Sa	8 12.87	20.65	12 7 7.77	3 35.91	0 46 23.4	23 23.2	64.10	15 59.04
27	St	— 8 33.52	20.46	12 10 43.68	3 36.09	—1 9 46.6	23 23.1	64.13	15 59.31
28	Mo	8 53.98	20.25	12 14 19.77	3 36.30	1 33 9.7	23 22.5	64.16	15 59.59
29	Di	9 14.23	20.03	12 17 56.07	3 36.53	1 56 32.2	23 21.6	64.19	15 59.86
30	Mi	9 34.26	19.77	12 21 32.60	3 36.78	2 19 53.8	23 20.4	64.22	16 0.13
Okt. 1	Do	9 54.03	19.50	12 25 9.38	3 37.05	2 43 14.2	23 18.8	64.26	16 0.40
2	Fr	10 13.53	19.20	12 28 46.43	3 37.36	3 6 33.0	23 17.0	64.31	16 0.67
3	Sa	—10 32.73	18.88	12 32 23.79	3 37.67	—3 29 50.0	23 14.8	64.35	16 0.94
4	St	10 51.61	18.54	12 36 1.46	3 38.01	3 53 4.8	23 12.2	64.39	16 1.21
5	Mo	11 10.15	18.18	12 39 39.47	3 38.38	4 16 17.0	23 9.3	64.44	16 1.48
6	Di	11 28.33	17.79	12 43 17.85	3 38.76	4 39 26.3	23 6.0	64.49	16 1.75
7	Mi	11 46.12	17.40	12 46 56.61	3 39.16	5 2 32.3	23 2.4	64.55	16 2.02
8	Do	12 3.52	16.97	12 50 35.77	3 39.58	5 25 34.7	22 58.4	64.61	16 2.29
9	Fr	—12 20.49	16.53	12 54 15.35	3 40.02	—5 48 33.1	22 53.9	64.67	16 2.57
10	Sa	12 37.02	16.09	12 57 55.37	3 40.47	6 11 27.0	22 49.1	64.73	16 2.84
11	St	12 53.11	15.62	13 1 35.84	3 40.93	6 34 16.1	22 43.8	64.80	16 3.11
12	Mo	13 8.73	15.13	13 5 16.77	3 41.42	6 56 59.9	22 38.2	64.87	16 3.39
13	Di	13 23.86	14.65	13 8 58.19	3 41.92	7 19 38.1	22 32.1	64.95	16 3.67
14	Mi	—13 38.51		13 12 40.11		—7 42 10.2		65.02	16 3.95

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge	Diff.	Breite	log R	Diff.	Aufgang	Untergang
1931	2426	h m s	in 0.001 s		° ′ ″	′ ″	″			in +50° Breite, 0h Länge h m	h m
Sept. 3	587.5	22 44 39.904	— 76	—18	159 31 43.5	58 7.0	—0.01	0.003 7681	1027	5 16	18 42
4	588.5	22 48 36.458	77	—17	160 29 50.5	58 9.0	+0.08	0.003 6654	1037	5 18	18 40
5	589.5	22 52 33.012	78	—14	161 27 59.5	58 10.9	+0.15	0.003 5617	1047	5 19	18 38
6	590.5	22 56 29.566	80	— 9	162 26 10.4	58 13.0	+0.20	0.003 4570	1058	5 20	18 36
7	591.5	23 0 26.120	81	— 2	163 24 23.4	58 15.0	+0.20	0.003 3512	1071	5 22	18 34
8	592.5	23 4 22.674	82	+ 5	164 22 38.4	58 17.1	+0.18	0.003 2441	1084	5 24	18 31
9	593.5	23 8 19.228	— 84	+10	165 20 55.5	58 19.0	+0.13	0.003 1357	1098	5 25	18 29
10	594.5	23 12 15.782	85	+12	166 19 14.5	58 21.0	+0.05	0.003 0259	1114	5 26	18 27
11	595.5	23 16 12.336	86	+10	167 17 35.5	58 23.0	—0.06	0.002 9145	1129	5 28	18 25
12	596.5	23 20 8.890	88	+ 6	168 15 58.5	58 24.8	—0.18	0.002 8016	1145	5 29	18 23
13	597.5	23 24 5.444	89	+ 1	169 14 23.3	58 26.6	—0.31	0.002 6871	1160	5 31	18 21
14	598.5	23 28 1.998	91	— 6	170 12 49.9	58 28.3	—0.45	0.002 5711	1174	5 32	18 18
15	599.5	23 31 58.552	— 92	—10	171 11 18.2	58 30.0	—0.59	0.002 4537	1187	5 34	18 16
16	600.5	23 35 55.106	94	—12	172 9 48.2	58 31.6	—0.71	0.002 3350	1199	5 35	18 14
17	601.5	23 39 51.659	96	—10	173 8 19.8	58 33.2	—0.81	0.002 2151	1208	5 37	18 12
18	602.5	23 43 48.213	97	— 5	174 6 53.0	58 34.8	—0.88	0.002 0943	1217	5 38	18 10
19	603.5	23 47 44.767	99	+ 1	175 5 27.8	58 36.5	—0.92	0.001 9726	1222	5 40	18 7
20	604.5	23 51 41.320	101	+ 9	176 4 4.3	58 38.1	—0.93	0.001 8504	1228	5 41	18 5
21	605.5	23 55 37.874	—102	+14	177 2 42.4	58 39.8	—0.91	0.001 7276	1230	5 43	18 3
22	606.5	23 59 34.428	104	+17	178 1 22.2	58 41.6	—0.86	0.001 6046	1232	5 44	18 1
23	607.5	0 3 30.981	106	+18	179 0 3.8	58 43.3	—0.79	0.001 4814	1233	5 46	17 58
24	608.5	0 7 27.535	108	+15	179 58 47.1	58 45.2	—0.70	0.001 3581	1234	5 47	17 56
25	609.5	0 11 24.089	109	+11	180 57 32.3	58 47.1	—0.58	0.001 2347	1232	5 49	17 54
26	610.5	0 15 20.642	111	+ 5	181 56 19.4	58 49.1	—0.45	0.001 1115	1232	5 50	17 52
27	611.5	0 19 17.196	—113	— 2	182 55 8.5	58 51.1	—0.31	0.000 9883	1229	5 52	17 50
28	612.5	0 23 13.750	114	— 9	183 53 59.6	58 53.1	—0.17	0.000 8654	1228	5 54	17 47
29	613.5	0 27 10.303	116	—13	184 52 52.7	58 55.3	—0.04	0.000 7426	1226	5 55	17 45
30	614.5	0 31 6.857	118	—17	185 51 48.0	58 57.4	+0.08	0.000 6200	1224	5 57	17 43
Okt. 1	615.5	0 35 3.411	119	—17	186 50 45.4	58 59.6	+0.18	0.000 4976	1222	5 58	17 41
2	616.5	0 38 59.964	121	—15	187 49 45.0	59 1.9	+0.26	0.000 3754	1221	6 0	17 39
3	617.5	0 42 56.518	—123	—10	188 48 46.9	59 4.2	+0.31	0.000 2533	1221	6 1	17 36
4	618.5	0 46 53.072	124	— 4	189 47 51.1	59 6.5	+0.33	0.000 1312	1220	6 3	17 34
5	619.5	0 50 49.626	125	+ 2	190 46 57.6	59 8.8	+0.32	0.000 0092	1222	6 4	17 32
6	620.5	0 54 46.180	127	+ 8	191 46 6.4	59 11.2	+0.28	9.999 8870	1223	6 6	17 30
7	621.5	0 58 42.733	129	+11	192 45 17.6	59 13.5	+0.22	9.999 7647	1226	6 7	17 28
8	622.5	1 2 39.287	130	+10	193 44 31.1	59 15.8	+0.13	9.999 6421	1230	6 9	17 26
9	623.5	1 6 35.841	—132	+ 7	194 43 46.9	59 18.0	+0.02	9.999 5191	1235	6 11	17 24
10	624.5	1 10 32.395	133	+ 1	195 43 4.9	59 20.2	—0.11	9.999 3956	1240	6 12	17 22
11	625.5	1 14 28.950	134	— 5	196 42 25.1	59 22.3	—0.25	9.999 2716	1245	6 14	17 19
12	626.5	1 18 25.504	135	—10	197 41 47.4	59 24.3	—0.39	9.999 1471	1251	6 15	17 17
13	627.5	1 22 22.058	136	—13	198 41 11.7	59 26.3	—0.51	9.999 0220	1255	6 17	17 15
14	628.5	1 26 18.612	—138	—12	199 40 38.0		—0.61	9.998 8965		6 18	17 13

Tag	Wochentag	0h Welt-Zeit: Zeitgleichung Mittlere Zeit *minus* Wahre Zeit (m s)	Diff. (s)	Scheinbare Rektaszension (h m s)	Diff. (m s)	Scheinbare Deklination (° ′ ″)	Diff. (′ ″)	Halbe Durchgangs-Dauer St.-Zt. (s)	Halbmesser (′ ″)
1931 Okt. 14	Mi	−13 38.51	14.13	13 12 40.11	3 42.42	− 7 42 10.2	22 25.7	65.02	16 3.95
15	Do	13 52.64	13.61	13 16 22.53	3 42.94	8 4 35.9	22 18.8	65.09	16 4.23
16	Fr	14 6.25	13.07	13 20 5.47	3 43.49	8 26 54.7	22 11.5	65.17	16 4.51
17	Sa	14 19.32	12.51	13 23 48.96	3 44.04	8 49 6.2	22 3.8	65.26	16 4.79
18	St	14 31.83	11.94	13 27 33.00	3 44.62	9 11 10.0	21 55.8	65.34	16 5.06
19	Mo	14 43.77	11.34	13 31 17.62	3 45.21	9 33 5.8	21 47.4	65.43	16 5.34
20	Di	−14 55.11	10.74	13 35 2.83	3 45.81	− 9 54 53.2	21 38.6	65.52	16 5.62
21	Mi	15 5.85	10.11	13 38 48.64	3 46.44	10 16 31.8	21 29.5	65.62	16 5.90
22	Do	15 15.96	9.47	13 42 35.08	3 47.09	10 38 1.3	21 19.9	65.71	16 6.17
23	Fr	15 25.43	8.81	13 46 22.17	3 47.75	10 59 21.2	21 9.9	65.81	16 6.44
24	Sa	15 34.24	8.13	13 50 9.92	3 48.43	11 20 31.1	20 59.7	65.91	16 6.71
25	St	15 42.37	7.43	13 53 58.35	3 49.12	11 41 30.8	20 49.0	66.01	16 6.98
26	Mo	−15 49.80	6.72	13 57 47.47	3 49.84	−12 2 19.8	20 38.0	66.11	16 7.25
27	Di	15 56.52	5.99	14 1 37.31	3 50.56	12 22 57.8	20 26.6	66.22	16 7.51
28	Mi	16 2.51	5.24	14 5 27.87	3 51.31	12 43 24.4	20 14.8	66.32	16 7.77
29	Do	16 7.75	4.48	14 9 19.18	3 52.08	13 3 39.2	20 2.6	66.43	16 8.03
30	Fr	16 12.23	3.70	14 13 11.26	3 52.85	13 23 41.8	19 50.0	66.53	16 8.28
31	Sa	16 15.93	2.92	14 17 4.11	3 53.64	13 43 31.8	19 37.0	66.64	16 8.53
Nov. 1	St	−16 18.85	2.11	14 20 57.75	3 54.44	−14 3 8.8	19 23.7	66.76	16 8.78
2	Mo	16 20.96	1.30	14 24 52.19	3 55.26	14 22 32.5	19 10.0	66.87	16 9.03
3	Di	16 22.26	0.48	14 28 47.45	3 56.08	14 41 42.5	18 55.8	66.98	16 9.27
4	Mi	16 22.74	$\overline{0.36}$	14 32 43.53	3 56.92	15 0 38.3	18 41.2	67.10	16 9.51
5	Do	16 22.38	1.21	14 36 40.45	3 57.76	15 19 19.5	18 26.2	67.22	16 9.75
6	Fr	16 21.17	2.05	14 40 38.21	3 58.60	15 37 45.7	18 10.8	67.33	16 9.99
7	Sa	−16 19.12	2.89	14 44 36.81	3 59.45	−15 55 56.5	17 55.0	67.45	16 10.22
8	St	16 16.23	3.75	14 48 36.26	4 0.30	16 13 51.5	17 38.7	67.57	16 10.46
9	Mo	16 12.48	4.59	14 52 36.56	4 1.15	16 31 30.2	17 21.9	67.69	16 10.69
10	Di	16 7.89	5.44	14 56 37.71	4 2.00	16 48 52.1	17 4.8	67.81	16 10.92
11	Mi	16 2.45	6.29	15 0 39.71	4 2.85	17 5 56.9	16 47.3	67.93	16 11.16
12	Do	15 56.16	7.13	15 4 42.56	4 3.68	17 22 44.2	16 29.2	68.05	16 11.39
13	Fr	−15 49.03	7.96	15 8 46.24	4 4.52	−17 39 13.4	16 10.8	68.17	16 11.61
14	Sa	15 41.07	8.80	15 12 50.76	4 5.36	17 55 24.2	15 51.9	68.29	16 11.84
15	St	15 32.27	9.63	15 16 56.12	4 6.18	18 11 16.1	15 32.8	68.41	16 12.06
16	Mo	15 22.64	10.45	15 21 2.30	4 7.01	18 26 48.9	15 13.1	68.53	16 12.28
17	Di	15 12.19	11.28	15 25 9.31	4 7.84	18 42 2.0	14 53.2	68.64	16 12.50
18	Mi	15 0.91	12.09	15 29 17.15	4 8.65	18 56 55.2	14 32.9	68.76	16 12.72
19	Do	−14 48.82	12.91	15 33 25.80	4 9.47	−19 11 28.1	14 12.1	68.87	16 12.93
20	Fr	14 35.91	13.71	15 37 35.27	4 10.27	19 25 40.2	13 51.1	68.99	16 13.14
21	Sa	14 22.20	14.52	15 41 45.54	4 11.07	19 39 31.3	13 29.6	69.10	16 13.34
22	St	14 7.68	15.31	15 45 56.61	4 11.87	19 53 0.9	13 7.9	69.22	16 13.54
23	Mo	13 52.37	16.09	15 50 8.48	4 12.65	20 6 8.8	12 45.7	69.33	16 13.74
24	Di	−13 36.28		15 54 21.13		−20 18 54.5		69.44	16 13.93

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge		Breite	log R		Aufgang (in +50° Breite, 0h Länge)	Untergang (in +50° Breite, 0h Länge)
1931	2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
Okt. 14	628.5	1 26 18.612	−138	−12	199 40 38.0	59 28.1	−0.61	9.998 8965	1258	6 18	17 13
15	629.5	1 30 15.166	139	− 7	200 40 6.1	59 29.8	−0.68	9.998 7707	1260	6 20	17 11
16	630.5	1 34 11.720	140	− 1	201 39 35.9	59 31.7	−0.73	9.998 6447	1259	6 22	17 9
17	631.5	1 38 8.275	141	+ 6	202 39 7.6	59 33.4	−0.75	9.998 5188	1258	6 23	17 7
18	632.5	1 42 4.830	141	+13	203 38 41.0	59 35.1	−0.74	9.998 3930	1254	6 25	17 5
19	633.5	1 46 1.384	142	+17	204 38 16.1	59 36.8	−0.70	9.998 2676	1248	6 26	17 3
20	634.5	1 49 57.939	−143	+18	205 37 52.9	59 38.6	−0.63	9.998 1428	1242	6 28	17 1
21	635.5	1 53 54.493	144	+17	206 37 31.5	59 40.4	−0.53	9.998 0186	1234	6 30	16 59
22	636.5	1 57 51.048	144	+13	207 37 11.9	59 42.1	−0.42	9.997 8952	1224	6 31	16 57
23	637.5	2 1 47.603	145	+ 7	208 36 54.0	59 44.0	−0.30	9.997 7728	1215	6 33	16 55
24	638.5	2 5 44.158	146	+ 1	209 36 38.0	59 45.8	−0.17	9.997 6513	1203	6 35	16 53
25	639.5	2 9 40.713	146	− 6	210 36 23.8	59 47.7	−0.04	9.997 5310	1192	6 36	16 51
26	640.5	2 13 37.268	−146	−12	211 36 11.5	59 49.7	+0.10	9.997 4118	1179	6 38	16 50
27	641.5	2 17 33.823	146	−15	212 36 1.2	59 51.6	+0.22	9.997 2939	1167	6 40	16 48
28	642.5	2 21 30.379	146	−17	213 35 52.8	59 53.6	+0.32	9.997 1772	1153	6 41	16 46
29	643.5	2 25 26.934	146	−15	214 35 46.4	59 55.7	+0.41	9.997 0619	1140	6 43	16 44
30	644.5	2 29 23.489	146	−11	215 35 42.1	59 57.7	+0.47	9.996 9479	1127	6 44	16 42
31	645.5	2 33 20.045	146	− 6	216 35 39.8	59 59.9	+0.50	9.996 8352	1114	6 46	16 40
Nov. 1	646.5	2 37 16.601	−146	+ 1	217 35 39.7	60 2.0	+0.51	9.996 7238	1103	6 48	16 39
2	647.5	2 41 13.157	145	+ 7	218 35 41.7	60 4.1	+0.49	9.996 6135	1091	6 50	16 37
3	648.5	2 45 9.712	145	+10	219 35 45.8	60 6.3	+0.43	9.996 5044	1080	6 51	16 35
4	649.5	2 49 6.268	144	+11	220 35 52.1	60 8.4	+0.34	9.996 3964	1072	6 53	16 34
5	650.5	2 53 2.824	144	+ 8	221 36 0.5	60 10.6	+0.24	9.996 2892	1063	6 54	16 32
6	651.5	2 56 59.380	143	+ 2	222 36 11.1	60 12.6	+0.12	9.996 1829	1056	6 56	16 30
7	652.5	3 0 55.936	−142	− 4	223 36 23.7	60 14.6	0.00	9.996 0773	1049	6 58	16 29
8	653.5	3 4 52.493	141	−10	224 36 38.3	60 16.5	−0.13	9.995 9724	1044	7 0	16 27
9	654.5	3 8 49.049	140	−13	225 36 54.8	60 18.4	−0.26	9.995 8680	1039	7 1	16 26
10	655.5	3 12 45.605	139	−13	226 37 13.2	60 20.1	−0.36	9.995 7641	1034	7 3	16 24
11	656.5	3 16 42.162	138	−10	227 37 33.3	60 21.7	−0.45	9.995 6607	1027	7 4	16 23
12	657.5	3 20 38.719	136	− 4	228 37 55.0	60 23.2	−0.51	9.995 5580	1020	7 6	16 21
13	658.5	3 24 35.276	−135	+ 3	229 38 18.2	60 24.7	−0.54	9.995 4560	1012	7 8	16 20
14	659.5	3 28 31.833	133	+10	230 38 42.9	60 26.1	−0.53	9.995 3548	1001	7 9	16 19
15	660.5	3 32 28.390	132	+16	231 39 9.0	60 27.5	−0.49	9.995 2547	990	7 11	16 17
16	661.5	3 36 24.947	130	+18	232 39 36.5	60 28.8	−0.43	9.995 1557	977	7 13	16 16
17	662.5	3 40 21.504	128	+18	233 40 5.3	60 30.1	−0.34	9.995 0580	963	7 14	16 15
18	663.5	3 44 18.061	126	+15	234 40 35.4	60 31.4	−0.23	9.994 9617	946	7 16	16 14
19	664.5	3 48 14.619	−124	+ 9	235 41 6.8	60 32.6	−0.11	9.994 8671	929	7 18	16 12
20	665.5	3 52 11.176	122	+ 3	236 41 39.4	60 33.9	+0.02	9.994 7742	911	7 19	16 11
21	666.5	3 56 7.733	120	− 4	237 42 13.3	60 35.2	+0.15	9.994 6831	891	7 21	16 10
22	667.5	4 0 4.291	118	−10	238 42 48.5	60 36.5	+0.29	9.994 5940	871	7 22	16 9
23	668.5	4 4 0.849	115	−13	239 43 25.0	60 37.8	+0.41	9.994 5069	850	7 24	16 8
24	669.5	4 7 57.407	−113	−16	240 44 2.8		+0.52	9.994 4219		7 25	16 7

Tag	Wochentag	Zeitgleichung Mittlere Zeit *minus* Wahre Zeit		Scheinbare Rektaszension		Scheinbare Deklination		Halbe Durchgangs-Dauer St.-Zt.	Halbmesser
		0h Welt-Zeit							
1931		m s	s	h m s	m s	° ′ ″	′ ″	s	′ ″
Nov. 24	Di	−13 36.28	16.87	15 54 21.13	4 13.43	−20 18 54.5	12 23.3	69.44	16 13.93
25	Mi	13 19.41	17.64	15 58 34.56	4 14.20	20 31 17.8	12 0.5	69.55	16 14.11
26	Do	13 1.77	18.40	16 2 48.76	4 14.95	20 43 18.3	11 37.5	69.65	16 14.30
27	Fr	12 43.37	19.15	16 7 3.71	4 15.70	20 54 55.8	11 14.0	69.75	16 14.47
28	Sa	12 24.22	19.88	16 11 19.41	4 16.44	21 6 9.8	10 50.3	69.85	16 14.64
29	St	12 4.34	20.60	16 15 35.85	4 17.16	21 17 0.1	10 26.2	69.95	16 14.81
30	Mo	−11 43.74	21.30	16 19 53.01	4 17.87	−21 27 26.3	10 1.9	70.04	16 14.97
Dez. 1	Di	11 22.44	22.00	16 24 10.88	4 18.55	21 37 28.2	9 37.2	70.14	16 15.12
2	Mi	11 0.44	22.67	16 28 29.43	4 19.23	21 47 5.4	9 12.3	70.23	16 15.27
3	Do	10 37.77	23.31	16 32 48.66	4 19.87	21 56 17.7	8 47.0	70.31	16 15.42
4	Fr	10 14.46	23.94	16 37 8.53	4 20.50	22 5 4.7	8 21.5	70.40	16 15.56
5	Sa	9 50.52	24.55	16 41 29.03	4 21.10	22 13 26.2	7 55.7	70.48	16 15.70
6	St	− 9 25.97	25.12	16 45 50.13	4 21.68	−22 21 21.9	7 29.6	70.56	16 15.84
7	Mo	9 0.85	25.66	16 50 11.81	4 22.22	22 28 51.5	7 3.3	70.63	16 15.97
8	Di	8 35.19	26.17	16 54 34.03	4 22.73	22 35 54.8	6 36.7	70.70	16 16.09
9	Mi	8 9.02	26.65	16 58 56.76	4 23.21	22 42 31.5	6 10.0	70.77	16 16.22
10	Do	7 42.37	27.10	17 3 19.97	4 23.66	22 48 41.5	5 42.9	70.83	16 16.34
11	Fr	7 15.27	27.51	17 7 43.63	4 24.06	22 54 24.4	5 15.8	70.89	16 16.46
12	Sa	− 6 47.76	27.88	17 12 7.69	4 24.44	−22 59 40.2	4 48.4	70.95	16 16.58
13	St	6 19.88	28.23	17 16 32.13	4 24.79	23 4 28.6	4 20.8	71.00	16 16.69
14	Mo	5 51.65	28.53	17 20 56.92	4 25.10	23 8 49.4	3 53.2	71.04	16 16.80
15	Di	5 23.12	28.81	17 25 22.02	4 25.37	23 12 42.6	3 25.5	71.08	16 16.90
16	Mi	4 54.31	29.06	17 29 47.39	4 25.61	23 16 8.1	2 57.5	71.12	16 17.00
17	Do	4 25.25	29.26	17 34 13.00	4 25.83	23 19 5.6	2 29.5	71.15	16 17.10
18	Fr	− 3 55.99	29.44	17 38 38.83	4 26.00	−23 21 35.1	2 1.5	71.18	16 17.19
19	Sa	3 26.55	29.59	17 43 4.83	4 26.14	23 23 36.6	1 33.4	71.21	16 17.28
20	St	2 56.96	29.70	17 47 30.97	4 26.26	23 25 10.0	1 5.2	71.23	16 17.36
21	Mo	2 27.26	29.77	17 51 57.23	4 26.33	23 26 15.2	0 37.0	71.24	16 17.43
22	Di	1 57.49	29.83	17 56 23.56	4 26.39	23 26 52.2	0 8.8	71.25	16 17.50
23	Mi	1 27.66	29.84	18 0 49.95	4 26.40	23 27 1.0	0 19.5	71.26	16 17.56
24	Do	− 0 57.82	29.83	18 5 16.35	4 26.39	−23 26 41.5	0 47.7	71.26	16 17.62
25	Fr	− 0 27.99	29.79	18 9 42.74	4 26.35	23 25 53.8	1 15.9	71.25	16 17.67
26	Sa	+ 0 1.80	29.72	18 14 9.09	4 26.27	23 24 37.9	1 44.1	71.24	16 17.71
27	St	0 31.52	29.61	18 18 35.36	4 26.17	23 22 53.8	2 12.3	71.23	16 17.75
28	Mo	1 1.13	29.48	18 23 1.53	4 26.04	23 20 41.5	2 40.3	71.22	16 17.79
29	Di	1 30.61	29.32	18 27 27.57	4 25.88	23 18 1.2	3 8.4	71.20	16 17.81
30	Mi	+ 1 59.93	29.13	18 31 53.45	4 25.69	−23 14 52.8	3 36.3	71.17	16 17.83
31	Do	2 29.06	28.91	18 36 19.14	4 25.47	23 11 16.5	4 4.3	71.13	16 17.84
32	Fr	+ 2 57.97		18 40 44.61		−23 7 12.2		71.09	16 17.85

Tag	Julian. Zeit	Sternzeit	Nutation in AR. langp. Gl.	Nutation in AR. kurzp. Gl.	Mittleres Äquinoktium 1931.0 Länge		Breite	log R		Aufgang (in +50° Breite, 0ʰ Länge)	Untergang (in +50° Breite, 0ʰ Länge)
1931	2426	h m s	in 0.001 s		° ′ ″	′ ″	″			h m	h m
Nov. 24	669.5	4 7 57.407	—113	—16	240 44 2.8	60 39.1	+0.52	9.994 4219	828	7 25	16 7
25	670.5	4 11 53.965	110	—15	241 44 41.9	60 40.5	+0.60	9.994 3391	805	7 27	16 6
26	671.5	4 15 50.523	108	—12	242 45 22.4	60 41.9	+0.68	9.994 2586	782	7 28	16 6
27	672.5	4 19 47.081	105	— 6	243 46 4.3	60 43.3	+0.72	9.994 1804	759	7 30	16 5
28	673.5	4 23 43.639	102	0	244 46 47.6	60 44.7	+0.72	9.994 1045	737	7 31	16 4
29	674.5	4 27 40.197	99	+ 6	245 47 32.3	60 46.1	+0.70	9.994 0308	714	7 33	16 3
30	675.5	4 31 36.756	— 96	+10	246 48 18.4	60 47.6	+0.65	9.993 9594	692	7 34	16 2
Dez. 1	676.5	4 35 33.314	93	+12	247 49 6.0	60 49.1	+0.57	9.993 8902	671	7 35	16 2
2	677.5	4 39 29.872	90	+10	248 49 55.1	60 50.6	+0.48	9.993 8231	652	7 37	16 1
3	678.5	4 43 26.431	87	+ 5	249 50 45.7	60 52.1	+0.36	9.993 7579	633	7 38	16 1
4	679.5	4 47 22.989	84	— 2	250 51 37.8	60 53.4	+0.23	9.993 6946	616	7 39	16 0
5	680.5	4 51 19.548	81	— 8	251 52 31.2	60 54.8	+0.10	9.993 6330	600	7 41	16 0
6	681.5	4 55 16.107	— 77	—13	252 53 26.0	60 56.0	—0.02	9.993 5730	585	7 42	15 59
7	682.5	4 59 12.665	74	—15	253 54 22.0	60 57.2	—0.13	9.993 5145	571	7 43	15 59
8	683.5	5 3 9.224	70	—13	254 55 19.2	60 58.3	—0.22	9.993 4574	558	7 44	15 59
9	684.5	5 7 5.783	67	— 7	255 56 17.5	60 59.3	—0.28	9.993 4016	543	7 45	15 58
10	685.5	5 11 2.342	63	0	256 57 16.8	61 0.1	—0.31	9.993 3473	530	7 46	15 58
11	686.5	5 14 58.901	60	+ 7	257 58 16.9	61 0.9	—0.31	9.993 2943	516	7 47	15 58
12	687.5	5 18 55.460	— 56	+13	258 59 17.8	61 1.5	—0.28	9.993 2427	500	7 48	15 58
13	688.5	5 22 52.019	53	+17	260 0 19.3	61 2.1	—0.22	9.993 1927	483	7 49	15 58
14	689.5	5 26 48.578	49	+18	261 1 21.4	61 2.7	—0.14	9.993 1444	465	7 50	15 58
15	690.5	5 30 45.137	45	+16	262 2 24.1	61 3.1	—0.04	9.993 0979	446	7 51	15 58
16	691.5	5 34 41.696	41	+11	263 3 27.2	61 3.6	+0.08	9.993 0533	426	7 52	15 58
17	692.5	5 38 38.255	37	+ 5	264 4 30.8	61 3.9	+0.20	9.993 0107	404	7 53	15 59
18	693.5	5 42 34.814	— 34	— 2	265 5 34.7	61 4.3	+0.33	9.992 9703	382	7 54	15 59
19	694.5	5 46 31.373	30	— 8	266 6 39.0	61 4.6	+0.45	9.992 9321	358	7 54	15 59
20	695.5	5 50 27.933	26	—13	267 7 43.6	61 5.0	+0.57	9.992 8963	333	7 55	16 0
21	696.5	5 54 24.492	22	—15	268 8 48.6	61 5.3	+0.68	9.992 8630	307	7 56	16 0
22	697.5	5 58 21.052	18	—15	269 9 53.9	61 5.6	+0.77	9.992 8323	281	7 56	16 0
23	698.5	6 2 17.611	14	—13	270 10 59.5	61 5.9	+0.84	9.992 8042	253	7 57	16 1
24	699.5	6 6 14.170	— 10	— 8	271 12 5.4	61 6.2	+0.88	9.992 7789	225	7 57	16 2
25	700.5	6 10 10.729	7	— 2	272 13 11.6	61 6.6	+0.89	9.992 7564	197	7 57	16 2
26	701.5	6 14 7.288	— 3	+ 5	273 14 18.2	61 7.0	+0.87	9.992 7367	169	7 58	16 3
27	702.5	6 18 3.847	+ 1	+10	274 15 25.2	61 7.4	+0.82	9.992 7198	140	7 58	16 4
28	703.5	6 22 0.407	5	+12	275 16 32.6	61 7.9	+0.75	9.992 7058	113	7 58	16 4
29	704.5	6 25 56.966	9	+12	276 17 40.5	61 8.3	+0.65	9.992 6945	86	7 59	16 5
30	705.5	6 29 53.525	+ 13	+ 8	277 18 48.8	61 8.7	+0.52	9.992 6859	61	7 59	16 6
31	706.5	6 33 50.084	16	+ 2	278 19 57.5	61 9.2	+0.38	9.992 6798	36	7 59	16 7
32	707.5	6 37 46.643	+ 20	— 6	279 21 6.7		+0.26	9.992 6762		7 59	16 8

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931	h									
Jan. 0	0	+0.147 0158	8 6381	—14216	—0.891 9405	1 2437	—1962	—0.386 8672	5398	— 853
0	12	0.155 6539	8 6257		0.890 6968	1 3126		0.386 3274	5696	
1	0	0.164 2796	8 6127	14176	0.889 3842	1 3815	2194	0.385 7578	5995	954
1	12	0.172 8923	8 5990		0.888 0027	1 4503		0.385 1583	6293	
2	0	0.181 4913	8 5847	14131	0.886 5524	1 5189	2425	0.384 5290	6590	1054
2	12	0.190 0760	8 5699		0.885 0335	1 5875		0.383 8700	6887	
3	0	+0.198 6459	8 5543	—14082	—0.883 4460	1 6559	—2654	—0.383 1813	7184	—1154
3	12	0.207 2002	8 5381		0.881 7901	1 7241		0.382 4629	7479	
4	0	0.215 7383	8 5214	14028	0.880 0660	1 7922	2883	0.381 7150	7774	1254
4	12	0.224 2597	8 5041		0.878 2738	1 8602		0.380 9376	8069	
5	0	0.232 7638	8 4861	13970	0.876 4136	1 9280	3111	0.380 1307	8362	1353
5	12	0.241 2499	8 4676		0.874 4856	1 9957		0.379 2945	8656	
6	0	+0.249 7175	8 4483	—13907	—0.872 4899	2 0632	—3339	—0.378 4289	8948	—1452
6	12	0.258 1658	8 4286		0.870 4267	2 1306		0.377 5341	9240	
7	0	0.266 5944	8 4082	13840	0.868 2961	2 1979	3565	0.376 6101	9532	1550
7	12	0.275 0026	8 3872		0.866 0982	2 2652		0.375 6569	9823	
8	0	0.283 3898	8 3655	13769	0.863 8330	2 3322	3790	0.374 6746	1 0113	1648
8	12	0.291 7553	8 3433		0.861 5008	2 3991		0.373 6633	1 0403	
9	0	+0.300 0986	8 3203	—13694	—0.859 1017	2 4659	—4014	—0.372 6230	1 0693	—1746
9	12	0.308 4189	8 2968		0.856 6358	2 5325		0.371 5537	1 0981	
10	0	0.316 7157	8 2726	13615	0.854 1033	2 5990	4237	0.370 4556	1 1269	1843
10	12	0.324 9883	8 2478		0.851 5043	2 6652		0.369 3287	1 1557	
11	0	0.333 2361	8 2223	13531	0.848 8391	2 7313	4459	0.368 1730	1 1843	1939
11	12	0.341 4584	8 1961		0.846 1078	2 7974		0.366 9887	1 2130	
12	0	+0.349 6545	8 1693	—13443	—0.843 3104	2 8632	—4679	—0.365 7757	1 2415	—2035
12	12	0.357 8238	8 1418		0.840 4472	2 9287		0.364 5342	1 2700	
13	0	0.365 9656	8 1136	13350	0.837 5185	2 9940	4898	0.363 2642	1 2984	2130
13	12	0.374 0792	8 0848		0.834 5245	3 0593		0.361 9658	1 3267	
14	0	0.382 1640	8 0553	13254	0.831 4652	3 1242	5115	0.360 6391	1 3549	2224
14	12	0.390 2193	8 0252		0.828 3410	3 1889		0.359 2842	1 3829	
15	0	+0.398 2445	7 9943	—13154	—0.825 1521	3 2534	—5331	—0.357 9013	1 4109	—2318
15	12	0.406 2388	7 9629		0.821 8987	3 3177		0.356 4904	1 4388	
16	0	0.414 2017	7 9308	13049	0.818 5810	3 3816	5545	0.355 0516	1 4666	2411
16	12	0.422 1325	7 8980		0.815 1994	3 4453		0.353 5850	1 4943	
17	0	0.430 0305	7 8645	12941	0.811 7541	3 5087	5757	0.352 0907	1 5218	2504
17	12	0.437 8950	7 8303		0.808 2454	3 5718		0.350 5689	1 5492	
18	0	+0.445 7253	7 7956	—12828	—0.804 6736	3 6346	—5968	—0.349 0197	1 5765	—2595
18	12	0.453 5209	7 7603		0.801 0390	3 6972		0.347 4432	1 6037	
19	0	0.461 2812	7 7243	12712	0.797 3418	3 7594	6176	0.345 8395	1 6307	2686
19	12	0.469 0055	7 6876		0.793 5824	3 8212		0.344 2088	1 6575	
20	0	0.476 6931	7 6503	—12591	0.789 7612	3 8828	—6383	0.342 5513	1 6842	—2776
20	12	+0.484 3434			—0.785 8784			—0.340 8671		

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931	h									
Jan. 20	12	+0.484 3434	7 6126		—0.785 8784	3 9441		—0.340 8671	1 7109	
21	0	0.491 9560	7 5739	—12466	0.781 9343	4 0049	— 6588	0.339 1562	1 7373	—2865
21	12	0.499 5299	7 5349		0.777 9294	4 0654		0.337 4189	1 7636	
22	0	0.507 0648	7 4952	12337	0.773 8640	4 1256	6790	0.335 6553	1 7897	2953
22	12	0.514 5600	7 4549		0.769 7384	4 1855		0.333 8656	1 8157	
23	0	0.522 0149	7 4141	12205	0.765 5529	4 2449	6991	0.332 0499	1 8415	3041
23	12	+0.529 4290	7 3727		—0.761 3080	4 3040		—0.330 2084	1 8671	
24	0	0.536 8017	7 3306	—12069	0.757 0040	4 3626	— 7189	0.328 3413	1 8926	—3127
24	12	0.544 1323	7 2881		0.752 6414	4 4210		0.326 4487	1 9179	
25	0	0.551 4204	7 2450	11930	0.748 2204	4 4789	7385	0.324 5308	1 9430	3212
25	12	0.558 6654	7 2013		0.743 7415	4 5366		0.322 5878	1 9680	
26	0	0.565 8667	7 1571	11787	0.739 2049	4 5937	7579	0.320 6198	1 9927	3296
26	12	+0.573 0238	7 1123		—0.734 6112	4 6505		—0.318 6271	2 0174	
27	0	0.580 1361	7 0670	—11640	0.729 9607	4 7067	— 7770	0.316 6097	2 0418	—3379
27	12	0.587 2031	7 0213		0.725 2540	4 7628		0.314 5679	2 0661	
28	0	0.594 2244	6 9750	11489	0.720 4912	4 8183	7959	0.312 5018	2 0901	3461
28	12	0.601 1994	6 9282		0.715 6729	4 8733		0.310 4117	2 1140	
29	0	0.608 1276	6 8810	11335	0.710 7996	4 9280	8146	0.308 2977	2 1377	3542
29	12	+0.615 0086	6 8332		—0.705 8716	4 9823		—0.306 1600	2 1612	
30	0	0.621 8418	6 7849	—11177	0.700 8893	5 0362	— 8330	0.303 9988	2 1846	—3622
30	12	0.628 6267	6 7362		0.695 8531	5 0897		0.301 8142	2 2077	
31	0	0.635 3629	6 6870	11015	0.690 7634	5 1427	8512	0.299 6065	2 2306	3701
31	12	0.642 0499	6 6375		0.685 6207	5 1954		0.297 3759	2 2535	
Febr. 1	0	0.648 6874	6 5874	10851	0.680 4253	5 2476	8690	0.295 1224	2 2761	3779
1	12	+0.655 2748	6 5369		—0.675 1777	5 2994		—0.292 8463	2 2985	
2	0	0.661 8117	6 4860	—10683	0.669 8783	5 3508	— 8866	0.290 5478	2 3208	—3855
2	12	0.668 2977	6 4346		0.664 5275	5 4019		0.288 2270	2 3429	
3	0	0.674 7323	6 3828	10511	0.659 1256	5 4525	9040	0.285 8841	2 3648	3931
3	12	0.681 1151	6 3305		0.653 6731	5 5027		0.283 5193	2 3865	
4	0	0.687 4456	6 2779	10337	0.648 1704	5 5526	9210	0.281 1328	2 4081	4005
4	12	+0.693 7235	6 2247		—0.642 6178	5 6020		—0.278 7247	2 4295	
5	0	0.699 9482	6 1711	—10159	0.637 0158	5 6511	— 9378	0.276 2952	2 4508	—4078
5	12	0.706 1193	6 1171		0.631 3647	5 6997		0.273 8444	2 4719	
6	0	0.712 2364	6 0626	9978	0.625 6650	5 7480	9543	0.271 3725	2 4928	4149
6	12	0.718 2990	6 0076		0.619 9170	5 7959		0.268 8797	2 5136	
7	0	0.724 3066	5 9522	9795	0.614 1211	5 8433	9705	0.266 3661	2 5341	4220
7	12	+0.730 2588	5 8963		—0.608 2778	5 8903		—0.263 8320	2 5545	
8	0	0.736 1551	5 8400	— 9608	0.602 3875	5 9369	— 9864	0.261 2775	2 5747	—4289
8	12	0.741 9951	5 7832		0.596 4506	5 9831		0.258 7028	2 5948	
9	0	0.747 7783	5 7260	9418	0.590 4675	6 0287	10020	0.256 1080	2 6147	4357
9	12	0.753 5043	5 6682		0.584 4388	6 0742		0.253 4933	2 6343	
10	0	+0.759 1725		— 9225	—0.578 3646		—10173	—0.250 8590		—4424

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931 Febr. 10	0h	+0.759 1725	5 6100	—9225	—0.578 3646	6 1190	—10173	—0.250 8590	2 6538	—4424
10	12	0.764 7825	5 5513		0.572 2456	6 1633		0.248 2052	2 6730	
11	0	0.770 3338	5 4922	9030	0.566 0823	6 2072	10322	0.245 5322	2 6921	4489
11	12	0.775 8260	5 4326		0.559 8751	6 2506		0.242 8401	2 7109	
12	0	0.781 2586	5 3727	8831	0.553 6245	6 2935	10469	0.240 1292	2 7296	4553
12	12	0.786 6313	5 3122		0.547 3310	6 3360		0.237 3996	2 7480	
13	0	+0.791 9435	5 2513	—8630	—0.540 9950	6 3778	—10612	—0.234 6516	2 7662	—4615
13	12	0.797 1948	5 1900		0.534 6172	6 4193		0.231 8854	2 7843	
14	0	0.802 3848	5 1283	8426	0.528 1979	6 4601	10752	0.229 1011	2 8020	4676
14	12	0.807 5131	5 0661		0.521 7378	6 5006		0.226 2991	2 8196	
15	0	0.812 5792	5 0036	8219	0.515 2372	6 5404	10889	0.223 4795	2 8369	4736
15	12	0.817 5828	4 9407		0.508 6968	6 5796		0.220 6426	2 8539	
16	0	+0.822 5235	4 8773	—8010	—0.502 1172	6 6184	—11023	—0.217 7887	2 8708	—4794
16	12	0.827 4008	4 8136		0.495 4988	6 6567		0.214 9179	2 8875	
17	0	0.832 2144	4 7495	7799	0.488 8421	6 6943	11153	0.212 0304	2 9038	4851
17	12	0.836 9639	4 6851		0.482 1478	6 7316		0.209 1266	2 9199	
18	0	0.841 6490	4 6203	7585	0.475 4162	6 7680	11280	0.206 2067	2 9358	4906
18	12	0.846 2693	4 5551		0.468 6482	6 8041		0.203 2709	2 9515	
19	0	+0.850 8244	4 4896	—7369	—0.461 8441	6 8395	—11403	—0.200 3194	2 9669	—4959
19	12	0.855 3140	4 4237		0.455 0046	6 8744		0.197 3525	2 9820	
20	0	0.859 7377	4 3575	7150	0.448 1302	6 9086	11523	0.194 3705	2 9969	5011
20	12	0.864 0952	4 2911		0.441 2216	6 9425		0.191 3736	3 0115	
21	0	0.868 3863	4 2243	6930	0.434 2791	6 9756	11639	0.188 3621	3 0259	5061
21	12	0.872 6106	4 1573		0.427 3035	7 0082		0.185 3362	3 0401	
22	0	+0.876 7679	4 0900	—6707	—0.420 2953	7 0401	—11751	—0.182 2961	3 0539	—5110
22	12	0.880 8579	4 0223		0.413 2552	7 0716		0.179 2422	3 0675	
23	0	0.884 8802	3 9544	6483	0.406 1836	7 1024	11860	0.176 1747	3 0809	5157
23	12	0.888 8346	3 8863		0.399 0812	7 1326		0.173 0938	3 0940	
24	0	0.892 7209	3 8178	6256	0.391 9486	7 1623	11965	0.169 9998	3 1068	5203
24	12	0.896 5387	3 7492		0.384 7863	7 1914		0.166 8930	3 1195	
25	0	+0.900 2879	3 6803	—6027	—0.377 5949	7 2199	—12067	—0.163 7735	3 1318	—5247
25	12	0.903 9682	3 6112		0.370 3750	7 2478		0.160 6417	3 1439	
26	0	0.907 5794	3 5419	5796	0.363 1272	7 2751	12165	0.157 4978	3 1557	5290
26	12	0.911 1213	3 4724		0.355 8521	7 3019		0.154 3421	3 1672	
27	0	0.914 5937	3 4027	5564	0.348 5502	7 3280	12259	0.151 1749	3 1785	5331
27	12	0.917 9964	3 3328		0.341 2222	7 3537		0.147 9964	3 1896	
28	0	+0.921 3292	3 2627	—5330	—0.333 8685	7 3787	—12349	—0.144 8068	3 2004	—5370
28	12	0.924 5919	3 1926		0.326 4898	7 4031		0.141 6064	3 2110	
März 1	0	0.927 7845	3 1222	5095	0.319 0867	7 4270	12436	0.138 3954	3 2213	5408
1	12	0.930 9067	3 0516		0.311 6597	7 4504		0.135 1741	3 2314	
2	0	0.933 9583	2 9809	—4858	0.304 2093	7 4731	—12519	0.131 9427	3 2412	—5444
2	12	+0.936 9392			—0.296 7362			—0.128 7015		

Welt-Zeit		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
		Mittleres Äquinoktium 1931.0								
1931	h									
März 2	12	+0.936 9392			—0.296 7362			—0.128 7015		
3	0	0.939 8492	2 9100	—4620	0.289 2408	7 4954	—12598	0.125 4507	3 2508	—5478
3	12	0.942 6883	2 8391		0.281 7237	7 5171		0.122 1906	3 2601	
4	0	0.945 4562	2 7679	4380	0.274 1854	7 5383	12674	0.118 9212	3 2694	5511
4	12	0.948 1527	2 6965		0.266 6264	7 5590		0.115 6429	3 2783	
5	0	0.950 7778	2 6251	4139	0.259 0474	7 5790	12745	0.112 3559	3 2870	5542
5	12	+0.953 3313	2 5535		—0.251 4488	7 5986		—0.109 0604	3 2955	
6	0	0.955 8130	2 4817	—3896	0.243 8311	7 6177	—12813	0.105 7567	3 3037	—5572
6	12	0.958 2228	2 4098		0.236 1949	7 6362		0.102 4450	3 3117	
7	0	0.960 5604	2 3376	3652	0.228 5407	7 6542	12877	0.099 1254	3 3196	5600
7	12	0.962 8257	2 2653		0.220 8690	7 6717		0.095 7983	3 3271	
8	0	0.965 0186	2 1929	3407	0.213 1805	7 6885	12937	0.092 4639	3 3344	5626
8	12	+0.967 1388	2 1202		—0.205 4756	7 7049		—0.089 1223	3 3416	
9	0	0.969 1862	2 0474	—3162	0.197 7549	7 7207	—12993	0.085 7738	3 3485	—5651
9	12	0.971 1607	1 9745		0.190 0190	7 7359		0.082 4187	3 3551	
10	0	0.973 0620	1 9013	2915	0.182 2684	7 7506	13045	0.079 0572	3 3615	5673
10	12	0.974 8900	1 8280		0.174 5037	7 7647		0.075 6896	3 3676	
11	0	0.976 6445	1 7545	2667	0.166 7255	7 7782	13093	0.072 3161	3 3735	5694
11	12	+0.978 3254	1 6809		—0.158 9344	7 7911		—0.068 9370	3 3791	
12	0	0.979 9326	1 6072	—2418	0.151 1308	7 8036	—13137	0.065 5524	3 3846	—5713
12	12	0.981 4659	1 5333		0.143 3155	7 8153		0.062 1627	3 3897	
13	0	0.982 9253	1 4594	2169	0.135 4891	7 8264	13177	0.058 7681	3 3946	5731
13	12	0.984 3104	1 3851		0.127 6522	7 8369		0.055 3689	3 3992	
14	0	0.985 6214	1 3110	1919	0.119 8053	7 8469	13214	0.051 9654	3 4035	5747
14	12	+0.986 8580	1 2366		—0.111 9490	7 8563		—0.048 5579	3 4075	
15	0	0.988 0201	1 1621	—1669	0.104 0841	7 8649	—13246	0.045 1465	3 4114	—5761
15	12	0.989 1077	1 0876		0.096 2111	7 8730		0.041 7316	3 4149	
16	0	0.990 1207	1 0130	1418	0.088 3306	7 8805	13274	0.038 3134	3 4182	5773
16	12	0.991 0590	9383		0.080 4433	7 8873		0.034 8922	3 4212	
17	0	0.991 9226	8636	1166	0.072 5498	7 8935	13298	0.031 4682	3 4240	5784
17	12	+0.992 7114	7888		—0.064 6507	7 8991		—0.028 0417	3 4265	
18	0	0.993 4253	7139	— 915	0.056 7465	7 9042	—13319	0.024 6131	3 4286	—5792
18	12	0.994 0643	6390		0.048 8380	7 9085		0.021 1826	3 4305	
19	0	0.994 6285	5642	663	0.040 9258	7 9122	13335	0.017 7504	3 4322	5799
19	12	0.995 1177	4892		0.033 0105	7 9153		0.014 3169	3 4335	
20	0	0.995 5321	4144	410	0.025 0927	7 9178	13348	0.010 8824	3 4345	5805
20	12	+0.995 8715	3394		—0.017 1731	7 9196		—0.007 4470	3 4354	
21	0	0.996 1361	2646	— 158	0.009 2522	7 9209	—13356	0.004 0111	3 4359	—5808
21	12	0.996 3257	1896		—0.001 3308	7 9214		—0.000 5750	3 4361	
22	0	0.996 4404	1147	+ 95	+0.006 5906	7 9214	13360	+0.002 8612	3 4362	5810
22	12	0.996 4802	398		0.014 5113	7 9207		0.006 2971	3 4359	
23	0	+0.996 4453	349	+ 347	+0.022 4309	7 9196	—13360	+0.009 7324	3 4353	—5810

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931	h									
März 23	0	+0.996 4453	1096	+ 347	+0.022 4309	7 9176	—13360	+0.009 7324	3 4344	—5810
23	12	0.996 3357	1843		0.030 3485	7 9150		0.013 1668	3 4333	
24	0	0.996 1514	2589	599	0.038 2635	7 9119	13357	0.016 6001	3 4319	5809
24	12	0.995 8925	3334		0.046 1754	7 9082		0.020 0320	3 4303	
25	0	0.995 5591	4078	851	0.054 0836	7 9038	13349	0.023 4623	3 4283	5805
25	12	0.995 1513	4822		0.061 9874	7 8988		0.026 8906	3 4262	
26	0	+0.994 6691	5563	+1103	+0.069 8862	7 8932	—13337	+0.030 3168	3 4237	—5800
26	12	0.994 1128	6304		0.077 7794	7 8871		0.033 7405	3 4211	
27	0	0.993 4824	7043	1355	0.085 6665	7 8803	13321	0.037 1616	3 4180	5793
27	12	0.992 7781	7782		0.093 5468	7 8730		0.040 5796	3 4148	
28	0	0.991 9999	8518	1606	0.101 4198	7 8651	13302	0.043 9944	3 4113	5785
28	12	0.991 1481	9254		0.109 2849	7 8566		0.047 4057	3 4076	
29	0	+0.990 2227	9987	+1857	+0.117 1415	7 8475	—13278	+0.050 8133	3 4036	—5774
29	12	0.989 2240	1 0720		0.124 9890	7 8380		0.054 2169	3 3995	
30	0	0.988 1520	1 1450	2107	0.132 8270	7 8278	13251	0.057 6164	3 3950	5762
30	12	0.987 0070	1 2179		0.140 6548	7 8171		0.061 0114	3 3903	
31	0	0.985 7891	1 2906	2356	0.148 4719	7 8059	13219	0.064 4017	3 3854	5748
31	12	0.984 4985	1 3632		0.156 2778	7 7942		0.067 7871	3 3803	
April 1	0	+0.983 1353	1 4356	+2604	+0.164 0720	7 7819	—13184	+0.071 1674	3 3750	—5733
1	12	0.981 6997	1 5080		0.171 8539	7 7692		0.074 5424	3 3694	
2	0	0.980 1917	1 5801	2852	0.179 6231	7 7558	13145	0.077 9118	3 3636	5716
2	12	0.978 6116	1 6521		0.187 3789	7 7420		0.081 2754	3 3576	
3	0	0.976 9595	1 7239	3099	0.195 1209	7 7276	13101	0.084 6330	3 3514	5697
3	12	0.975 2356	1 7957		0.202 8485	7 7128		0.087 9844	3 3450	
4	0	+0.973 4399	1 8673	+3345	+0.210 5613	7 6974	—13054	+0.091 3294	3 3383	—5677
4	12	0.971 5726	1 9387		0.218 2587	7 6816		0.094 6677	3 3314	
5	0	0.969 6339	2 0100	3590	0.225 9403	7 6652	13003	0.097 9991	3 3243	5655
5	12	0.967 6239	2 0812		0.233 6055	7 6482		0.101 3234	3 3170	
6	0	0.965 5427	2 1523	3834	0.241 2537	7 6307	12948	0.104 6404	3 3095	5631
6	12	0.963 3904	2 2232		0.248 8844	7 6127		0.107 9499	3 3017	
7	0	+0.961 1672	2 2939	+4077	+0.256 4971	7 5941	—12890	+0.111 2516	3 2937	—5605
7	12	0.958 8733	2 3645		0.264 0912	7 5751		0.114 5453	3 2854	
8	0	0.956 5088	2 4350	4319	0.271 6663	7 5553	12828	0.117 8307	3 2769	5578
8	12	0.954 0738	2 5053		0.279 2216	7 5352		0.121 1076	3 2682	
9	0	0.951 5685	2 5754	4560	0.286 7568	7 5144	12762	0.124 3758	3 2592	5549
9	12	0.948 9931	2 6454		0.294 2712	7 4931		0.127 6350	3 2501	
10	0	+0.946 3477	2 7151	+4799	+0.301 7643	7 4712	—12692	+0.130 8851	3 2406	—5519
10	12	0.943 6326	2 7847		0.309 2355	7 4488		0.134 1257	3 2308	
11	0	0.940 8479	2 8540	5037	0.316 6843	7 4258	12618	0.137 3565	3 2209	5487
11	12	0.937 9939	2 9232		0.324 1101	7 4022		0.140 5774	3 2108	
12	0	0.935 0707	2 9921	+5273	0.331 5123	7 3780	—12541	0.143 7882	3 2003	—5453
12	12	+0.932 0786			+0.338 8903			+0.146 9885		

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931										
April 12	12h	+0.932 0786	3 0608		+0.338 8903	7 3534		+0.146 9885	3 1897	
13	0	0.929 0178	3 1293	+5508	0.346 2437	7 3282	—12460	0.150 1782	3 1787	—5418
13	12	0.925 8885	3 1975		0.353 5719	7 3024		0.153 3569	3 1676	
14	0	0.922 6910	3 2655	5741	0.360 8743	7 2760	12375	0.156 5245	3 1562	5381
14	12	0.919 4255	3 3331		0.368 1503	7 2492		0.159 6807	3 1445	
15	0	0.916 0924	3 4006	5973	0.375 3995	7 2217	12287	0.162 8252	3 1327	5343
15	12	+0.912 6918	3 4679		+0.382 6212	7 1937		+0.165 9579	3 1205	
16	0	0.909 2239	3 5348	+6203	0.389 8149	7 1651	—12195	0.169 0784	3 1081	—5303
16	12	0.905 6891	3 6015		0.396 9800	7 1361		0.172 1865	3 0956	
17	0	0.902 0876	3 6678	6431	0.404 1161	7 1064	12100	0.175 2821	3 0827	5262
17	12	0.898 4198	3 7337		0.411 2225	7 0763		0.178 3648	3 0695	
18	0	0.894 6861	3 7994	6657	0.418 2988	7 0456	12001	0.181 4343	3 0563	5219
18	12	+0.890 8867	3 8648		+0.425 3444	7 0144		+0.184 4906	3 0427	
19	0	0.887 0219	3 9299	+6881	0.432 3588	6 9825	—11898	0.187 5333	3 0289	—5174
19	12	0.883 0920	3 9946		0.439 3413	6 9503		0.190 5622	3 0149	
20	0	0.879 0974	4 0590	7103	0.446 2916	6 9174	11792	0.193 5771	3 0006	5128
20	12	0.875 0384	4 1231		0.453 2090	6 8841		0.196 5777	2 9861	
21	0	0.870 9153	4 1867	7323	0.460 0931	6 8502	11682	0.199 5638	2 9714	5080
21	12	+0.866 7286	4 2499		+0.466 9433	6 8159		+0.202 5352	2 9565	
22	0	0.862 4787	4 3128	+7541	0.473 7592	6 7811	—11569	0.205 4917	2 9413	—5031
22	12	0.858 1659	4 3754		0.480 5403	6 7457		0.208 4330	2 9260	
23	0	0.853 7905	4 4375	7756	0.487 2860	6 7099	11453	0.211 3590	2 9103	4980
23	12	0.849 3530	4 4992		0.493 9959	6 6736		0.214 2693	2 8946	
24	0	0.844 8538	4 5605	7970	0.500 6695	6 6368	11333	0.217 1639	2 8786	4928
24	12	+0.840 2933	4 6215		+0.507 3063	6 5995		+0.220 0425	2 8624	
25	0	0.835 6718	4 6819	+8181	0.513 9058	6 5619	—11210	0.222 9049	2 8460	—4875
25	12	0.830 9899	4 7421		0.520 4677	6 5238		0.225 7509	2 8294	
26	0	0.826 2478	4 8018	8390	0.526 9915	6 4852	11084	0.228 5803	2 8127	4820
26	12	0.821 4460	4 8611		0.533 4767	6 4463		0.231 3930	2 7957	
27	0	0.816 5849	4 9200	8596	0.539 9230	6 4068	10954	0.234 1887	2 7786	4764
27	12	+0.811 6649	4 9784		+0.546 3298	6 3671		+0.236 9673	2 7614	
28	0	0.806 6865	5 0364	+8800	0.552 6969	6 3268	—10822	0.239 7287	2 7439	—4706
28	12	0.801 6501	5 0941		0.559 0237	6 2863		0.242 4726	2 7262	
29	0	0.796 5560	5 1513	9001	0.565 3100	6 2453	10686	0.245 1988	2 7084	4647
29	12	0.791 4047	5 2082		0.571 5553	6 2039		0.247 9072	2 6905	
30	0	0.786 1965	5 2646	9199	0.577 7592	6 1622	10547	0.250 5977	2 6724	4587
30	12	+0.780 9319	5 3206		+0.583 9214	6 1200		+0.253 2701	2 6541	
Mai 1	0	0.775 6113	5 3763	+9395	0.590 0414	6 0775	—10405	0.255 9242	2 6357	—4525
1	12	0.770 2350	5 4317		0.596 1189	6 0347		0.258 5599	2 6171	
2	0	0.764 8033	5 4866	9588	0.602 1536	5 9914	10261	0.261 1770	2 5984	4462
2	12	0.759 3167	5 5411		0.608 1450	5 9477		0.263 7754	2 5794	
3	0	+0.753 7756		+9779	+0.614 0927		—10113	+0.266 3548		—4398

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931	h									
Mai 3	0	+0.753 7756	5 5952	+ 9779	+0.614 0927	5 9036	−10113	+0.266 3548	2 5603	−4398
3	12	0.748 1804	5 6491		0.619 9963	5 8593		0.268 9151	2 5411	
4	0	0.742 5313	5 7024	9966	0.625 8556	5 8145	9963	0.271 4562	2 5217	4333
4	12	0.736 8289	5 7554		0.631 6701	5 7693		0.273 9779	2 5021	
5	0	0.731 0735	5 8081	10151	0.637 4394	5 7237	9809	0.276 4800	2 4824	4266
5	12	0.725 2654	5 8603		0.643 1631	5 6777		0.278 9624	2 4626	
6	0	+0.719 4051	5 9122	+10333	+0.648 8408	5 6313	− 9653	+0.281 4250	2 4425	−4198
6	12	0.713 4929	5 9637		0.654 4721	5 5845		0.283 8675	2 4222	
7	0	0.707 5292	6 0147	10512	0.660 0566	5 5373	9494	0.286 2897	2 4017	4129
7	12	0.701 5145	6 0654		0.665 5939	5 4898		0.288 6914	2 3812	
8	0	0.695 4491	6 1156	10687	0.671 0837	5 4418	9332	0.291 0726	2 3604	4058
8	12	0.689 3335	6 1655		0.676 5255	5 3934		0.293 4330	2 3394	
9	0	+0.683 1680	6 2148	+10860	+0.681 9189	5 3446	− 9167	+0.295 7724	2 3183	−3987
9	12	0.676 9532	6 2637		0.687 2635	5 2954		0.298 0907	2 2970	
10	0	0.670 6895	6 3122	11030	0.692 5589	5 2458	9000	0.300 3877	2 2755	3914
10	12	0.664 3773	6 3602		0.697 8047	5 1959		0.302 6632	2 2539	
11	0	0.658 0171	6 4078	11196	0.703 0006	5 1456	8830	0.304 9171	2 2321	3840
11	12	0.651 6093	6 4549		0.708 1462	5 0948		0.307 1492	2 2101	
12	0	+0.645 1544	6 5015	+11360	+0.713 2410	5 0437	− 8658	+0.309 3593	2 1879	−3765
12	12	0.638 6529	6 5478		0.718 2847	4 9923		0.311 5472	2 1657	
13	0	0.632 1051	6 5934	11520	0.723 2770	4 9404	8483	0.313 7129	2 1432	3689
13	12	0.625 5117	6 6387		0.728 2174	4 8882		0.315 8561	2 1206	
14	0	0.618 8730	6 6833	11676	0.733 1056	4 8356	8306	0.317 9767	2 0977	3612
14	12	0.612 1897	6 7275		0.737 9412	4 7827		0.320 0744	2 0747	
15	0	+0.605 4622	6 7712	+11830	+0.742 7239	4 7294	− 8126	+0.322 1491	2 0516	−3534
15	12	0.598 6910	6 8145		0.747 4533	4 6757		0.324 2007	2 0283	
16	0	0.591 8765	6 8571	11980	0.752 1290	4 6217	7944	0.326 2290	2 0049	3455
16	12	0.585 0194	6 8993		0.756 7507	4 5673		0.328 2339	1 9813	
17	0	0.578 1201	6 9409	12126	0.761 3180	4 5126	7759	0.330 2152	1 9575	3375
17	12	0.571 1792	6 9819		0.765 8306	4 4575		0.332 1727	1 9337	
18	0	+0.564 1973	7 0225	+12269	+0.770 2881	4 4021	− 7573	+0.334 1064	1 9096	−3293
18	12	0.557 1748	7 0624		0.774 6902	4 3466		0.336 0160	1 8854	
19	0	0.550 1124	7 1018	12409	0.779 0368	4 2905	7384	0.337 9014	1 8611	3211
19	12	0.543 0106	7 1407		0.783 3273	4 2343		0.339 7625	1 8366	
20	0	0.535 8699	7 1789	12545	0.787 5616	4 1777	7193	0.341 5991	1 8120	3128
20	12	0.528 6910	7 2167		0.791 7393	4 1208		0.343 4111	1 7874	
21	0	+0.521 4743	7 2537	+12677	+0.795 8601	4 0636	− 7000	+0.345 1985	1 7626	−3044
21	12	0.514 2206	7 2904		0.799 9237	4 0063		0.346 9611	1 7376	
22	0	0.506 9302	7 3263	12806	0.803 9300	3 9486	6805	0.348 6987	1 7125	2959
22	12	0.499 6039	7 3617		0.807 8786	3 8906		0.350 4112	1 6874	
23	0	0.492 2422	7 3965	+12931	0.811 7692	3 8325	− 6608	0.352 0986	1 6621	−2874
23	12	+0.484 8457			+0.815 6017			+0.353 7607		

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931										
Mai 23	12h	+0.484 8457	7 4307		+0.815 6017	3 7741		+0.353 7607	1 6368	
24	0	0.477 4150	7 4644	+13053	0.819 3758	3 7155	—6409	0.355 3975	1 6113	—2787
24	12	0.469 9506	7 4975		0.823 0913	3 6568		0.357 0088	1 5858	
25	0	0.462 4531	7 5300	13171	0.826 7481	3 5977	6209	0.358 5946	1 5601	2700
25	12	0.454 9231	7 5620		0.830 3458	3 5385		0.360 1547	1 5344	
26	0	0.447 3611	7 5934	13285	0.833 8843	3 4791	6007	0.361 6891	1 5086	2612
26	12	+0.439 7677	7 6242		+0.837 3634	3 4196		+0.363 1977	1 4828	
27	0	0.432 1435	7 6545	+13395	0.840 7830	3 3598	—5803	0.364 6805	1 4568	—2523
27	12	0.424 4890	7 6842		0.844 1428	3 2998		0.366 1373	1 4309	
28	0	0.416 8048	7 7134	13501	0.847 4426	3 2396	5598	0.367 5682	1 4048	2434
28	12	0.409 0914	7 7421		0.850 6822	3 1794		0.368 9730	1 3787	
29	0	0.401 3493	7 7702	13603	0.853 8616	3 1189	5391	0.370 3517	1 3525	2344
29	12	+0.393 5791	7 7979		+0.856 9805	3 0584		+0.371 7042	1 3262	
30	0	0.385 7812	7 8249	+13702	0.860 0389	2 9976	—5182	0.373 0304	1 2998	—2253
30	12	0.377 9563	7 8515		0.863 0365	2 9366		0.374 3302	1 2735	
31	0	0.370 1048	7 8775	13797	0.865 9731	2 8754	4972	0.375 6037	1 2469	2162
31	12	0.362 2273	7 9031		0.868 8485	2 8142		0.376 8506	1 2204	
Juni 1	0	0.354 3242	7 9281	13888	0.871 6627	2 7527	4761	0.378 0710	1 1937	2070
1	12	+0.346 3961	7 9527		+0.874 4154	2 6911		+0.379 2647	1 1671	
2	0	0.338 4434	7 9767	+13975	0.877 1065	2 6292	—4548	0.380 4318	1 1403	—1978
2	12	0.330 4667	8 0001		0.879 7357	2 5672		0.381 5721	1 1135	
3	0	0.322 4666	8 0230	14058	0.882 3029	2 5050	4334	0.382 6856	1 0865	1885
3	12	0.314 4436	8 0455		0.884 8079	2 4427		0.383 7721	1 0595	
4	0	0.306 3981	8 0673	14137	0.887 2506	2 3801	4118	0.384 8316	1 0324	1791
4	12	+0.298 3308	8 0887		+0.889 6307	2 3173		+0.385 8640	1 0053	
5	0	0.290 2421	8 1094	+14212	0.891 9480	2 2544	—3901	0.386 8693	9780	—1697
5	12	0.282 1327	8 1297		0.894 2024	2 1915		0.387 8473	9506	
6	0	0.274 0030	8 1494	14283	0.896 3939	2 1282	3683	0.388 7979	9232	1602
6	12	0.265 8536	8 1685		0.898 5221	2 0648		0.389 7211	8958	
7	0	0.257 6851	8 1871	14349	0.900 5869	2 0012	3465	0.390 6169	8682	1507
7	12	+0.249 4980	8 2051		+0.902 5881	1 9374		+0.391 4851	8406	
8	0	0.241 2929	8 2225	+14412	0.904 5255	1 8736	—3245	0.392 3257	8129	—1411
8	12	0.233 0704	8 2393		0.906 3991	1 8095		0.393 1386	7852	
9	0	0.224 8311	8 2556	14471	0.908 2086	1 7453	3024	0.393 9238	7573	1315
9	12	0.216 5755	8 2712		0.909 9539	1 6810		0.394 6811	7294	
10	0	0.208 3043	8 2863	14526	0.911 6349	1 6165	2802	0.395 4105	7014	1218
10	12	+0.200 0180	8 3009		+0.913 2514	1 5519		+0.396 1119	6735	
11	0	0.191 7171	8 3148	+14576	0.914 8033	1 4872	—2580	0.396 7854	6454	—1122
11	12	0.183 4023	8 3281		0.916 2905	1 4222		0.397 4308	6172	
12	0	0.175 0742	8 3408	14623	0.917 7127	1 3573	2357	0.398 0480	5889	1025
12	12	0.166 7334	8 3528		0.919 0700	1 2922		0.398 6369	5608	
13	0	+0.158 3806		+14665	+0.920 3622		—2133	+0.399 1977		— 927

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931										
Juni 13	0h	+0.158 3806	8 3643	+14665	+0.920 3622	1 2270	—2133	+0.399 1977	5324	—927
13	12	0.150 0163	8 3752		0.921 5892	1 1616		0.399 7301	5040	
14	0	0.141 6411	8 3854	14704	0.922 7508	1 0962	1909	0.400 2341	4756	830
14	12	0.133 2557	8 3950		0.923 8470	1 0306		0.400 7097	4473	
15	0	0.124 8607	8 4040	14738	0.924 8776	9650	1684	0.401 1570	4188	732
15	12	0.116 4567	8 4123		0.925 8426	8993		0.401 5758	3902	
16	0	+0.108 0444	8 4200	+14768	+0.926 7419	8335	—1459	+0.401 9660	3616	—634
16	12	0.099 6244	8 4270		0.927 5754	7678		0.402 3276	3331	
17	0	0.091 1974	8 4334	14794	0.928 3432	7019	1233	0.402 6607	3044	536
17	12	0.082 7640	8 4391		0.929 0451	6361		0.402 9651	2758	
18	0	0.074 3249	8 4442	14816	0.929 6812	5701	1007	0.403 2409	2472	438
18	12	0.065 8807	8 4487		0.930 2513	5042		0.403 4881	2186	
19	0	+0.057 4320	8 4524	+14833	+0.930 7555	4382	— 780	+0.403 7067	1899	—339
19	12	0.048 9796	8 4556		0.931 1937	3723		0.403 8966	1612	
20	0	0.040 5240	8 4581	14846	0.931 5660	3063	553	0.404 0578	1326	240
20	12	0.032 0659	8 4601		0.931 8723	2405		0.404 1904	1040	
21	0	0.023 6058	8 4613	14855	0.932 1128	1745	326	0.404 2944	754	142
21	12	0.015 1445	8 4620		0.932 2873	1088		0.404 3698	468	
22	0	+0.006 6825	8 4620	+14859	+0.932 3961	429	— 99	+0.404 4166	182	—43
22	12	—0.001 7795	8 4615		0.932 4390	228		0.404 4348	102	
23	0	0.010 2410	8 4603	14860	0.932 4162	884	+ 128	0.404 4246	387	+ 55
23	12	0.018 7013	8 4585		0.932 3278	1541		0.404 3859	672	
24	0	0.027 1598	8 4562	14856	0.932 1737	2197	354	0.404 3187	956	154
24	12	0.035 6160	8 4532		0.931 9540	2851		0.404 2231	1241	
25	0	—0.044 0692	8 4497	+14848	+0.931 6689	3505	+ 581	+0.404 0990	1524	+ 252
25	12	0.052 5189	8 4458		0.931 3184	4160		0.403 9466	1808	
26	0	0.060 9647	8 4412	14836	0.930 9024	4813	807	0.403 7658	2091	351
26	12	0.069 4059	8 4360		0.930 4211	5465		0.403 5567	2373	
27	0	0.077 8419	8 4303	14819	0.929 8746	6117	1033	0.403 3194	2655	449
27	12	0.086 2722	8 4239		0.929 2629	6768		0.403 0539	2938	
28	0	—0.094 6961	8 4171	+14799	+0.928 5861	7418	+1259	+0.402 7601	3219	+ 548
28	12	0.103 1132	8 4097		0.927 8443	8068		0.402 4382	3501	
29	0	0.111 5229	8 4018	14775	0.927 0375	8716	1485	0.402 0881	3782	646
29	12	0.119 9247	8 3935		0.926 1659	9365		0.401 7099	4062	
30	0	0.128 3182	8 3845	14746	0.925 2294	1 0013	1710	0.401 3037	4343	744
30	12	0.136 7027	8 3749		0.924 2281	1 0660		0.400 8694	4624	
Juli 1	0	—0.145 0776	8 3649	+14713	+0.923 1621	1 1306	+1935	+0.400 4070	4904	+ 841
1	12	0.153 4425	8 3543		0.922 0315	1 1953		0.399 9166	5184	
2	0	0.161 7968	8 3431	14677	0.920 8362	1 2598	2159	0.399 3982	5463	939
2	12	0.170 1399	8 3313		0.919 5764	1 3243		0.398 8519	5742	
3	0	0.178 4712	8 3190	+14636	0.918 2521	1 3886	+2383	0.398 2777	6021	+1036
3	12	—0.186 7902			+0.916 8635			+0.397 6756		

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931 Juli 3	12h	—0.186 7902	8 3062		+0.916 8635	1 4530		+0.397 6756	6299	
4	0	0.195 0964	8 2927	+14591	0.915 4105	1 5172	+2606	0.397 0457	6578	+1133
4	12	0.203 3891	8 2788		0.913 8933	1 5815		0.396 3879	6857	
5	0	0.211 6679	8 2643	14542	0.912 3118	1 6455	2828	0.395 7022	7135	1230
5	12	0.219 9322	8 2491		0.910 6663	1 7096		0.394 9887	7413	
6	0	0.228 1813	8 2334	14488	0.908 9567	1 7735	3050	0.394 2474	7690	1326
6	12	—0.236 4147	8 2172		+0.907 1832	1 8374		+0.393 4784	7966	
7	0	0.244 6319	8 2003	+14431	0.905 3458	1 9011	+3270	0.392 6818	8242	+1422
7	12	0.252 8322	8 1829		0.903 4447	1 9647		0.391 8576	8519	
8	0	0.261 0151	8 1648	14369	0.901 4800	2 0283	3490	0.391 0057	8794	1518
8	12	0.269 1799	8 1463		0.899 4517	2 0917		0.390 1263	9069	
9	0	0.277 3262	8 1271	14304	0.897 3600	2 1550	3709	0.389 2194	9344	1613
9	12	—0.285 4533	8 1073		+0.895 2050	2 2182		+0.388 2850	9619	
10	0	0.293 5606	8 0869	+14234	0.892 9868	2 2812	+3927	0.387 3231	9893	+1708
10	12	0.301 6475	8 0660		0.890 7056	2 3443		0.386 3338	1 0165	
11	0	0.309 7135	8 0444	14161	0.888 3613	2 4071	4143	0.385 3173	1 0438	1802
11	12	0.317 7579	8 0223		0.885 9542	2 4697		0.384 2735	1 0710	
12	0	0.325 7802	7 9995	14083	0.883 4845	2 5322	4359	0.383 2025	1 0982	1896
12	12	—0.333 7797	7 9762		+0.880 9523	2 5947		+0.382 1043	1 1253	
13	0	0.341 7559	7 9522	+14002	0.878 3576	2 6568	+4573	0.380 9790	1 1523	+1989
13	12	0.349 7081	7 9276		0.875 7008	2 7189		0.379 8267	1 1792	
14	0	0.357 6357	7 9024	13916	0.872 9819	2 7808	4786	0.378 6475	1 2061	2081
14	12	0.365 5381	7 8767		0.870 2011	2 8424		0.377 4414	1 2329	
15	0	0.373 4148	7 8502	13827	0.867 3587	2 9039	4997	0.376 2085	1 2596	2173
15	12	—0.381 2650	7 8231		+0.864 4548	2 9651		+0.374 9489	1 2863	
16	0	0.389 0881	7 7955	+13734	0.861 4897	3 0261	+5207	0.373 6626	1 3127	+2264
16	12	0.396 8836	7 7673		0.858 4636	3 0869		0.372 3499	1 3391	
17	0	0.404 6509	7 7384	13636	0.855 3767	3 1475	5416	0.371 0108	1 3654	2355
17	12	0.412 3893	7 7091		0.852 2292	3 2078		0.369 6454	1 3916	
18	0	0.420 0984	7 6791	13535	0.849 0214	3 2678	5623	0.368 2538	1 4176	2445
18	12	—0.427 7775	7 6485		+0.845 7536	3 3276		+0.366 8362	1 4437	
19	0	0.435 4260	7 6174	+13430	0.842 4260	3 3871	+5829	0.365 3925	1 4695	+2535
19	12	0.443 0434	7 5858		0.839 0389	3 4463		0.363 9230	1 4951	
20	0	0.450 6292	7 5535	13321	0.835 5926	3 5052	6033	0.362 4279	1 5207	2624
20	12	0.458 1827	7 5208		0.832 0874	3 5639		0.360 9072	1 5462	
21	0	0.465 7035	7 4875	13209	0.828 5235	3 6222	6235	0.359 3610	1 5715	2711
21	12	—0.473 1910	7 4537		+0.824 9013	3 6803		+0.357 7895	1 5966	
22	0	0.480 6447	7 4194	+13093	0.821 2210	3 7380	+6436	0.356 1929	1 6217	+2798
22	12	0.488 0641	7 3847		0.817 4830	3 7955		0.354 5712	1 6466	
23	0	0.495 4488	7 3494	12973	0.813 6875	3 8526	6634	0.352 9246	1 6714	2885
23	12	0.502 7982	7 3135		0.809 8349	3 9095		0.351 2532	1 6960	
24	0	—0.510 1117		+12849	+0.805 9254		+6831	+0.349 5572		+2970

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931										
Juli 24	0^h	—0.510 1117	7 2773	+12849	+0.805 9254	3 9661	+ 6831	+0.349 5572	1 7205	+2970
24	12	0.517 3890	7 2405		0.801 9593	4 0224		0.347 8367	1 7448	
25	0	0.524 6295	7 2033	12722	0.797 9369	4 0783	7026	0.346 0919	1 7691	3055
25	12	0.531 8328	7 1657		0.793 8586	4 1340		0.344 3228	1 7933	
26	0	0.538 9985	7 1275	12591	0.789 7246	4 1894	7218	0.342 5295	1 8173	3138
26	12	0.546 1260	7 0890		0.785 5352	4 2446		0.340 7122	1 8411	
27	0	—0.553 2150	7 0499	+12457	+0.781 2906	4 2994	+ 7409	+0.338 8711	1 8648	+3221
27	12	0.560 2649	7 0104		0.776 9912	4 3540		0.337 0063	1 8885	
28	0	0.567 2753	6 9704	12319	0.772 6372	4 4082	7597	0.335 1178	1 9119	3304
28	12	0.574 2457	6 9299		0.768 2290	4 4622		0.333 2059	1 9353	
29	0	0.581 1756	6 8891	12178	0.763 7668	4 5158	7784	0.331 2706	1 9585	3385
29	12	0.588 0647	6 8477		0.759 2510	4 5692		0.329 3121	1 9817	
30	0	—0.594 9124	6 8060	+12033	+0.754 6818	4 6224	+ 7969	+0.327 3304	2 0047	+3465
30	12	0.601 7184	6 7637		0.750 0594	4 6751		0.325 3257	2 0276	
31	0	0.608 4821	6 7209	11885	0.745 3843	4 7276	8151	0.323 2981	2 0503	3544
31	12	0.615 2030	6 6778		0.740 6567	4 7799		0.321 2478	2 0730	
Aug. 1	0	0.621 8808	6 6341	11734	0.735 8768	4 8318	8331	0.319 1748	2 0955	3623
1	12	0.628 5149	6 5899		0.731 0450	4 8835		0.317 0793	2 1178	
2	0	—0.635 1048	6 5453	+11579	+0.726 1615	4 9348	+ 8508	+0.314 9615	2 1401	+3700
2	12	0.641 6501	6 5003		0.721 2267	4 9859		0.312 8214	2 1622	
3	0	0.648 1504	6 4547	11421	0.716 2408	5 0366	8683	0.310 6592	2 1842	3776
3	12	0.654 6051	6 4088		0.711 2042	5 0869		0.308 4750	2 2061	
4	0	0.661 0139	6 3623	11260	0.706 1173	5 1370	8856	0.306 2689	2 2278	3851
4	12	0.667 3762	6 3154		0.700 9803	5 1868		0.304 0411	2 2494	
5	0	—0.673 6916	6 2680	+11095	+0.695 7935	5 2362	+ 9026	+0.301 7917	2 2708	+3925
5	12	0.679 9596	6 2201		0.690 5573	5 2853		0.299 5209	2 2922	
6	0	0.686 1797	6 1717	10928	0.685 2720	5 3341	9193	0.297 2287	2 3134	3998
6	12	0.692 3514	6 1230		0.679 9379	5 3825		0.294 9153	2 3344	
7	0	0.698 4744	6 0737	10757	0.674 5554	5 4306	9358	0.292 5809	2 3552	4070
7	12	0.704 5481	6 0239		0.669 1248	5 4784		0.290 2257	2 3760	
8	0	—0.710 5720	5 9737	+10584	+0.663 6464	5 5257	+ 9520	+0.287 8497	2 3966	+4140
8	12	0.716 5457	5 9232		0.658 1207	5 5728		0.285 4531	2 4170	
9	0	0.722 4689	5 8719	10407	0.652 5479	5 6195	9680	0.283 0361	2 4373	4209
9	12	0.728 3408	5 8203		0.646 9284	5 6657		0.280 5988	2 4574	
10	0	0.734 1611	5 7681	10227	0.641 2627	5 7117	9836	0.278 1414	2 4773	4278
10	12	0.739 9292	5 7156		0.635 5510	5 7571		0.275 6641	2 4971	
11	0	—0.745 6448	5 6625	+10045	+0.629 7939	5 8022	+ 9990	+0.273 1670	2 5167	+4345
11	12	0.751 3073	5 6089		0.623 9917	5 8471		0.270 6503	2 5362	
12	0	0.756 9162	5 5549	9859	0.618 1446	5 8914	10142	0.268 1141	2 5554	4410
12	12	0.762 4711	5 5006		0.612 2532	5 9352		0.265 5587	2 5745	
13	0	0.767 9717	5 4457	+ 9671	0.606 3180	5 9786	+10290	0.262 9842	2 5934	+4475
13	12	—0.773 4174			+0.600 3394			+0.260 3908		

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931 Aug. 13	12h	−0.773 4174	5 3903		+0.600 3394	6 0217		+0.260 3908	2 6121	
14	0	0.778 8077	5 3345	+9480	0.594 3177	6 0641	+10435	0.257 7787	2 6306	+4538
14	12	0.784 1422	5 2784		0.588 2536	6 1062		0.255 1481	2 6489	
15	0	0.789 4206	5 2217	9286	0.582 1474	6 1478	10578	0.252 4992	2 6669	4600
15	12	0.794 6423	5 1646		0.575 9996	6 1890		0.249 8323	2 6848	
16	0	0.799 8069	5 1072	9090	0.569 8106	6 2296	10717	0.247 1475	2 7023	4661
16	12	−0.804 9141	5 0494		+0.563 5810	6 2699		+0.244 4452	2 7198	
17	0	0.809 9635	4 9912	+8891	0.557 3111	6 3095	+10854	0.241 7254	2 7370	+4720
17	12	0.814 9547	4 9326		0.551 0016	6 3487		0.238 9884	2 7540	
18	0	0.819 8873	4 8737	8689	0.544 6529	6 3873	10987	0.236 2344	2 7708	4778
18	12	0.824 7610	4 8146		0.538 2656	6 4256		0.233 4636	2 7874	
19	0	0.829 5756	4 7550	8485	0.531 8400	6 4633	11117	0.230 6762	2 8037	4835
19	12	−0.834 3306	4 6950		+0.525 3767	6 5006		+0.227 8725	2 8199	
20	0	0.839 0256	4 6348	+8279	0.518 8761	6 5373	+11244	0.225 0526	2 8358	+4890
20	12	0.843 6604	4 5744		0.512 3388	6 5735		0.222 2168	2 8514	
21	0	0.848 2348	4 5135	8070	0.505 7653	6 6093	11367	0.219 3654	2 8670	4944
21	12	0.852 7483	4 4525		0.499 1560	6 6447		0.216 4984	2 8822	
22	0	0.857 2008	4 3911	7859	0.492 5113	6 6795	11488	0.213 6162	2 8973	4996
22	12	−0.861 5919	4 3294		+0.485 8318	6 7139		+0.210 7189	2 9121	
23	0	0.865 9213	4 2674	+7645	0.479 1179	6 7479	+11605	0.207 8068	2 9268	+5047
23	12	0.870 1887	4 2053		0.472 3700	6 7813		0.204 8800	2 9413	
24	0	0.874 3940	4 1428	7429	0.465 5887	6 8144	11719	0.201 9387	2 9556	5097
24	12	0.878 5368	4 0799		0.458 7743	6 8468		0.198 9831	2 9696	
25	0	0.882 6167	4 0169	7212	0.451 9275	6 8788	11829	0.196 0135	2 9835	5145
25	12	−0.886 6336	3 9535		+0.445 0487	6 9105		+0.193 0300	2 9972	
26	0	0.890 5871	3 8899	+6992	0.438 1382	6 9416	+11936	0.190 0328	3 0107	+5191
26	12	0.894 4770	3 8261		0.431 1966	6 9723		0.187 0221	3 0239	
27	0	0.898 3031	3 7619	6771	0.424 2243	7 0025	12040	0.183 9982	3 0371	5236
27	12	0.902 0650	3 6976		0.417 2218	7 0323		0.180 9611	3 0499	
28	0	0.905 7626	3 6329	6547	0.410 1895	7 0616	12140	0.177 9112	3 0626	5279
28	12	−0.909 3955	3 5679		+0.403 1279	7 0904		+0.174 8486	3 0750	
29	0	0.912 9634	3 5027	+6322	0.396 0375	7 1187	+12237	0.171 7736	3 0873	+5321
29	12	0.916 4661	3 4372		0.388 9188	7 1466		0.168 6863	3 0994	
30	0	0.919 9033	3 3715	6094	0.381 7722	7 1740	12330	0.165 5869	3 1114	5362
30	12	0.923 2748	3 3054		0.374 5982	7 2011		0.162 4755	3 1230	
31	0	0.926 5802	3 2391	5865	0.367 3971	7 2275	12420	0.159 3525	3 1345	5401
31	12	−0.929 8193	3 1726		+0.360 1696	7 2535		+0.156 2180	3 1458	
Sept. 1	0	0.932 9919	3 1057	+5635	0.352 9161	7 2790	+12506	0.153 0722	3 1569	+5438
1	12	0.936 0976	3 0388		0.345 6371	7 3040		0.149 9153	3 1677	
2	0	0.939 1364	2 9714	5402	0.338 3331	7 3286	12588	0.146 7476	3 1784	5474
2	12	0.942 1078	2 9038		0.331 0045	7 3526		0.143 5692	3 1888	
3	0	−0.945 0116		+5168	+0.323 6519		+12667	+0.140 3804		+5508

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931 Sept. 3	0h	−0.945 0116	2 8359	+5168	+0.323 6519	7 3762	+12667	+0.140 3804	3 1991	+5508
3	12	0.947 8475	2 7679		0.316 2757	7 3992		0.137 1813	3 2091	
4	0	0.950 6154	2 6996	4933	0.308 8765	7 4218	12742	0.133 9722	3 2189	5541
4	12	0.953 3150	2 6309		0.301 4547	7 4438		0.130 7533	3 2285	
5	0	0.955 9459	2 5621	4696	0.294 0109	7 4653	12814	0.127 5248	3 2378	5572
5	12	0.958 5080	2 4930		0.286 5456	7 4864		0.124 2870	3 2470	
6	0	−0.961 0010	2 4236	+4458	+0.279 0592	7 5069	+12882	+0.121 0400	3 2560	+5602
6	12	0.963 4246	2 3540		0.271 5523	7 5269		0.117 7840	3 2647	
7	0	0.965 7786	2 2842	4218	0.264 0254	7 5464	12946	0.114 5193	3 2732	5630
7	12	0.968 0628	2 2141		0.256 4790	7 5652		0.111 2461	3 2815	
8	0	0.970 2769	2 1438	3977	0.248 9138	7 5836	13007	0.107 9646	3 2894	5656
8	12	0.972 4207	2 0732		0.241 3302	7 6014		0.104 6752	3 2972	
9	0	−0.974 4939	2 0025	+3735	+0.233 7288	7 6187	+13063	+0.101 3780	3 3047	+5681
9	12	0.976 4964	1 9315		0.226 1101	7 6354		0.098 0733	3 3120	
10	0	0.978 4279	1 8603	3492	0.218 4747	7 6515	13116	0.094 7613	3 3190	5704
10	12	0.980 2882	1 7889		0.210 8232	7 6670		0.091 4423	3 3259	
11	0	0.982 0771	1 7173	3248	0.203 1562	7 6819	13166	0.088 1164	3 3323	5725
11	12	0.983 7944	1 6454		0.195 4743	7 6963		0.084 7841	3 3385	
12	0	−0.985 4398	1 5734	+3003	+0.187 7780	7 7100	+13211	+0.081 4456	3 3445	+5745
12	12	0.987 0132	1 5014		0.180 0680	7 7231		0.078 1011	3 3501	
13	0	0.988 5146	1 4291	2757	0.172 3449	7 7356	13253	0.074 7510	3 3556	5763
13	12	0.989 9437	1 3568		0.164 6093	7 7475		0.071 3954	3 3608	
14	0	0.991 3005	1 2843	2510	0.156 8618	7 7588	13290	0.068 0346	3 3656	5779
14	12	0.992 5848	1 2116		0.149 1030	7 7695		0.064 6690	3 3703	
15	0	−0.993 7964	1 1389	+2263	+0.141 3335	7 7796	+13324	+0.061 2987	3 3746	+5794
15	12	0.994 9353	1 0662		0.133 5539	7 7890		0.057 9241	3 3787	
16	0	0.996 0015	9934	2015	0.125 7649	7 7979	13353	0.054 5454	3 3826	5807
16	12	0.996 9949	9205		0.117 9670	7 8062		0.051 1628	3 3861	
17	0	0.997 9154	8476	1766	0.110 1608	7 8139	13379	0.047 7767	3 3894	5818
17	12	0.998 7630	7746		0.102 3469	7 8210		0.044 3873	3 3924	
18	0	−0.999 5376	7016	+1517	+0.094 5259	7 8274	+13401	+0.040 9949	3 3952	+5828
18	12	1.000 2392	6286		0.086 6985	7 8335		0.037 5997	3 3978	
19	0	1.000 8678	5555	1268	0.078 8650	7 8388	13419	0.034 2019	3 4001	5836
19	12	1.001 4233	4824		0.071 0262	7 8437		0.030 8018	3 4021	
20	0	1.001 9057	4093	1018	0.063 1825	7 8479	13433	0.027 3997	3 4039	5842
20	12	1.002 3150	3361		0.055 3346	7 8516		0.023 9958	3 4055	
21	0	−1.002 6511	2630	+ 768	+0.047 4830	7 8547	+13443	+0.020 5903	3 4068	+5846
21	12	1.002 9141	1899		0.039 6283	7 8574		0.017 1835	3 4079	
22	0	1.003 1040	1167	517	0.031 7709	7 8594	13449	0.013 7756	3 4088	5849
22	12	1.003 2207	435		0.023 9115	7 8609		0.010 3668	3 4093	
23	0	1.003 2642	296	+ 267	0.016 0506	7 8618	+13451	0.006 9575	3 4097	+5850
23	12	−1.003 2346			+0.008 1888			+0.003 5478		

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931 Sept. 23	12h	−1.003 2346	1028		+0.008 1888	7 8623		+0.003 5478	3 4099	
24	0	1.003 1318	1759	+ 16	+0.000 3265	7 8621	+13450	+0.000 1379	3 4097	+5850
24	12	1.002 9559	2492		−0.007 5356	7 8615		−0.003 2718	3 4095	
25	0	1.002 7067	3224	− 234	0.015 3971	7 8602	13444	0.006 6813	3 4089	5847
25	12	1.002 3843	3956		0.023 2573	7 8585		0.010 0902	3 4082	
26	0	1.001 9887	4688	485	0.031 1158	7 8561	13435	0.013 4984	3 4071	5843
26	12	−1.001 5199	5420		−0.038 9719	7 8533		−0.016 9055	3 4060	
27	0	1.000 9779	6151	− 735	0.046 8252	7 8498	+13421	0.020 3115	3 4044	+5837
27	12	1.000 3628	6884		0.054 6750	7 8458		0.023 7159	3 4027	
28	0	0.999 6744	7615	985	0.062 5208	7 8413	13404	0.027 1186	3 4008	5830
28	12	0.998 9129	8347		0.070 3621	7 8364		0.030 5194	3 3986	
29	0	0.998 0782	9078	1235	0.078 1985	7 8307	13383	0.033 9180	3 3960	5820
29	12	−0.997 1704	9809		−0.086 0292	7 8246		−0.037 3140	3 3937	
30	0	0.996 1895	1 0540	−1485	0.093 8538	7 8179	+13358	0.040 7077	3 3906	+5809
30	12	0.995 1355	1 1271		0.101 6717	7 8106		0.044 0983	3 3875	
Okt. 1	0	0.994 0084	1 2001	1734	0.109 4823	7 8028	13329	0.047 4858	3 3841	5797
1	12	0.992 8083	1 2731		0.117 2851	7 7944		0.050 8699	3 3806	
2	0	0.991 5352	1 3461	1983	0.125 0795	7 7855	13296	0.054 2505	3 3767	5782
2	12	−0.990 1891	1 4191		−0.132 8650	7 7760		−0.057 6272	3 3727	
3	0	0.988 7700	1 4920	−2231	0.140 6410	7 7659	+13259	0.060 9999	3 3683	+5766
3	12	0.987 2780	1 5649		0.148 4069	7 7554		0.064 3682	3 3637	
4	0	0.985 7131	1 6378	2479	0.156 1623	7 7441	13218	0.067 7319	3 3589	5749
4	12	0.984 0753	1 7106		0.163 9064	7 7324		0.071 0908	3 3539	
5	0	0.982 3647	1 7833	2725	0.171 6388	7 7201	13174	0.074 4447	3 3486	5729
5	12	−0.980 5814	1 8561		−0.179 3589	7 7072		−0.077 7933	3 3430	
6	0	0.978 7253	1 9288	−2971	0.187 0661	7 6937	+13125	0.081 1363	3 3371	+5708
6	12	0.976 7965	2 0013		0.194 7598	7 6795		0.084 4734	3 3312	
7	0	0.974 7952	2 0738	3216	0.202 4393	7 6648	13072	0.087 8046	3 3248	5685
7	12	0.972 7214	2 1463		0.210 1041	7 6495		0.091 1294	3 3182	
8	0	0.970 5751	2 2186	3460	0.217 7536	7 6336	13015	0.094 4476	3 3113	5660
8	12	−0.968 3565	2 2908		−0.225 3872	7 6171		−0.097 7589	3 3042	
9	0	0.966 0657	2 3629	−3703	0.233 0043	7 5999	+12955	0.101 0631	3 2967	+5634
9	12	0.963 7028	2 4349		0.240 6042	7 5822		0.104 3598	3 2890	
10	0	0.961 2679	2 5068	3945	0.248 1864	7 5637	12891	0.107 6488	3 2810	5606
10	12	0.958 7611	2 5786		0.255 7501	7 5447		0.110 9298	3 2728	
11	0	0.956 1825	2 6501	4186	0.263 2948	7 5251	12823	0.114 2026	3 2642	5576
11	12	−0.953 5324	2 7216		−0.270 8199	7 5048		−0.117 4668	3 2555	
12	0	0.950 8108	2 7927	−4425	0.278 3247	7 4839	+12751	0.120 7223	3 2464	+5545
12	12	0.948 0181	2 8637		0.285 8086	7 4625		0.123 9687	3 2371	
13	0	0.945 1544	2 9344	4663	0.293 2711	7 4404	12675	0.127 2058	3 2275	5512
13	12	0.942 2200	3 0050		0.300 7115	7 4177		0.130 4333	3 2176	
14	0	−0.939 2150		−4900	−0.308 1292		+12596	−0.133 6509		+5477

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931										
Okt. 14	0^h	—0.939 2150	3 0752	—4900	—0.308 1292	7 3943	+12596	—0.133 6509	3 2075	+5477
14	12	0.936 1398	3 1453		0.315 5235	7 3706		0.136 8584	3 1970	
15	0	0.932 9945	3 2151	5135	0.322 8941	7 3460	12513	0.140 0554	3 1864	5441
15	12	0.929 7794	3 2846		0.330 2401	7 3210		0.143 2418	3 1755	
16	0	0.926 4948	3 3539	5369	0.337 5611	7 2954	12426	0.146 4173	3 1644	5403
16	12	0.923 1409	3 4228		0.344 8565	7 2693		0.149 5817	3 1530	
17	0	—0.919 7181	3 4915	—5602	—0.352 1258	7 2426	+12335	—0.152 7347	3 1414	+5364
17	12	0.916 2266	3 5600		0.359 3684	7 2153		0.155 8761	3 1295	
18	0	0.912 6666	3 6281	5833	0.366 5837	7 1875	12241	0.159 0056	3 1174	5323
18	12	0.909 0385	3 6959		0.373 7712	7 1593		0.162 1230	3 1051	
19	0	0.905 3426	3 7635	6062	0.380 9305	7 1305	12143	0.165 2281	3 0926	5280
19	12	0.901 5791	3 8307		0.388 0610	7 1011		0.168 3207	3 0799	
20	0	—0.897 7484	3 8977	—6288	—0.395 1621	7 0713	+12041	—0.171 4006	3 0668	+5236
20	12	0.893 8507	3 9645		0.402 2334	7 0409		0.174 4674	3 0537	
21	0	0.889 8862	4 0309	6513	0.409 2743	7 0100	11936	0.177 5211	3 0402	5190
21	12	0.885 8553	4 0970		0.416 2843	6 9787		0.180 5613	3 0266	
22	0	0.881 7583	4 1628	6736	0.423 2630	6 9468	11827	0.183 5879	3 0128	5143
22	12	0.877 5955	4 2284		0.430 2098	6 9144		0.186 6007	2 9987	
23	0	—0.873 3671	4 2936	—6957	—0.437 1242	6 8815	+11715	—0.189 5994	2 9844	+5094
23	12	0.869 0735	4 3586		0.444 0057	6 8481		0.192 5838	2 9700	
24	0	0.864 7149	4 4232	7176	0.450 8538	6 8142	11599	0.195 5538	2 9552	5044
24	12	0.860 2917	4 4877		0.457 6680	6 7798		0.198 5090	2 9403	
25	0	0.855 8040	4 5517	7392	0.464 4478	6 7450	11480	0.201 4493	2 9252	4992
25	12	0.851 2523	4 6154		0.471 1928	6 7096		0.204 3745	2 9099	
26	0	—0.846 6369	4 6788	—7607	—0.477 9024	6 6737	+11357	—0.207 2844	2 8943	+4939
26	12	0.841 9581	4 7419		0.484 5761	6 6374		0.210 1787	2 8786	
27	0	0.837 2162	4 8047	7819	0.491 2135	6 6006	11231	0.213 0573	2 8626	4884
27	12	0.832 4115	4 8672		0.497 8141	6 5633		0.215 9199	2 8465	
28	0	0.827 5443	4 9294	8029	0.504 3774	6 5255	11101	0.218 7664	2 8301	4828
28	12	0.822 6149	4 9913		0.510 9029	6 4872		0.221 5965	2 8136	
29	0	—0.817 6236	5 0528	—8236	—0.517 3901	6 4484	+10968	—0.224 4101	2 7968	+4770
29	12	0.812 5708	5 1140		0.523 8385	6 4092		0.227 2069	2 7798	
30	0	0.807 4568	5 1749	8441	0.530 2477	6 3695	10832	0.229 9867	2 7626	4711
30	12	0.802 2819	5 2355		0.536 6172	6 3292		0.232 7493	2 7451	
31	0	0.797 0464	5 2958	8644	0.542 9464	6 2885	10693	0.235 4944	2 7275	4650
31	12	0.791 7506	5 3557		0.549 2349	6 2474		0.238 2219	2 7098	
Nov. 1	0	—0.786 3949	5 4152	—8844	—0.555 4823	6 2057	+10550	—0.240 9317	2 6917	+4588
1	12	0.780 9797	5 4745		0.561 6880	6 1635		0.243 6234	2 6734	
2	0	0.775 5052	5 5333	9041	0.567 8515	6 1208	10404	0.246 2968	2 6549	4525
2	12	0.769 9719	5 5919		0.573 9723	6 0777		0.248 9517	2 6363	
3	0	0.764 3800	5 6501	—9236	0.580 0500	6 0340	+10255	0.251 5880	2 6173	+4460
3	12	—0.758 7299			—0.586 0840			—0.254 2053		

Welt-Zeit		Mittleres Äquinoktium 1931.0 X	Diff.	Red. auf 1925.0	Y	Diff.	Red. auf 1925.0	Z	Diff.	Red. auf 1925.0
1931										
Nov. 3	12h	−0.758 7299	5 7079		−0.586 0840	5 9898		−0.254 2053	2 5984	
4	0	0.753 0220	5 7653	− 9428	0.592 0738	5 9452	+10102	0.256 8037	2 5790	+4394
4	12	0.747 2567	5 8224		0.598 0190	5 9000		0.259 3827	2 5593	
5	0	0.741 4343	5 8791	9617	0.603 9190	5 8544	9947	0.261 9420	2 5395	4326
5	12	0.735 5552	5 9354		0.609 7734	5 8082		0.264 4815	2 5196	
6	0	0.729 6198	5 9912	9803	0.615 5816	5 7615	9789	0.267 0011	2 4993	4257
6	12	−0.723 6286	6 0467		−0.621 3431	5 7144		−0.269 5004	2 4789	
7	0	0.717 5819	6 1016	− 9986	0.627 0575	5 6666	+ 9628	0.271 9793	2 4582	+4187
7	12	0.711 4803	6 1562		0.632 7241	5 6185		0.274 4375	2 4373	
8	0	0.705 3241	6 2103	10166	0.638 3426	5 5698	9463	0.276 8748	2 4162	4115
8	12	0.699 1138	6 2639		0.643 9124	5 5206		0.279 2910	2 3948	
9	0	0.692 8499	6 3170	10343	0.649 4330	5 4710	9296	0.281 6858	2 3732	4043
9	12	−0.686 5329	6 3697		−0.654 9040	5 4208		−0.284 0590	2 3515	
10	0	0.680 1632	6 4218	−10517	0.660 3248	5 3702	+ 9127	0.286 4105	2 3295	+3969
10	12	0.673 7414	6 4734		0.665 6950	5 3192		0.288 7400	2 3074	
11	0	0.667 2680	6 5244	10687	0.671 0142	5 2677	8954	0.291 0474	2 2850	3894
11	12	0.660 7436	6 5751		0.676 2819	5 2158		0.293 3324	2 2624	
12	0	0.654 1685	6 6251	10854	0.681 4977	5 1634	8778	0.295 5948	2 2396	3818
12	12	−0.647 5434	6 6745		−0.686 6611	5 1105		−0.297 8344	2 2167	
13	0	0.640 8689	6 7234	−11018	0.691 7716	5 0573	+ 8600	0.300 0511	2 1936	+3740
13	12	0.634 1455	6 7719		0.696 8289	5 0038		0.302 2447	2 1703	
14	0	0.627 3736	6 8197	11178	0.701 8327	4 9498	8419	0.304 4150	2 1469	3662
14	12	0.620 5539	6 8669		0.706 7825	4 8955		0.306 5619	2 1233	
15	0	0.613 6870	6 9136	11335	0.711 6780	4 8408	8236	0.308 6852	2 0995	3582
15	12	−0.606 7734	6 9598		−0.716 5188	4 7857		−0.310 7847	2 0755	
16	0	0.599 8136	7 0054	−11489	0.721 3045	4 7302	+ 8050	0.312 8602	2 0514	+3501
16	12	0.592 8082	7 0505		0.726 0347	4 6745		0.314 9116	2 0273	
17	0	0.585 7577	7 0951	11639	0.730 7092	4 6183	7861	0.316 9389	2 0029	3419
17	12	0.578 6626	7 1390		0.735 3275	4 5618		0.318 9418	1 9783	
18	0	0.571 5236	7 1825	11785	0.739 8893	4 5050	7671	0.320 9201	1 9536	3336
18	12	−0.564 3411	7 2253		−0.744 3943	4 4478		−0.322 8737	1 9289	
19	0	0.557 1158	7 2677	−11928	0.748 8421	4 3904	+ 7478	0.324 8026	1 9039	+3252
19	12	0.549 8481	7 3095		0.753 2325	4 3326		0.326 7065	1 8789	
20	0	0.542 5386	7 3507	12067	0.757 5651	4 2745	7282	0.328 5854	1 8537	3167
20	12	0.535 1879	7 3914		0.761 8396	4 2161		0.330 4391	1 8284	
21	0	0.527 7965	7 4315	12203	0.766 0557	4 1573	7085	0.332 2675	1 8029	3081
21	12	−0.520 3650	7 4711		−0.770 2130	4 0983		−0.334 0704	1 7772	
22	0	0.512 8939	7 5102	−12335	0.774 3113	4 0390	+ 6885	0.335 8476	1 7515	+2994
22	12	0.505 3837	7 5487		0.778 3503	3 9793		0.337 5991	1 7257	
23	0	0.497 8350	7 5866	12462	0.782 3296	3 9194	6683	0.339 3248	1 6997	2906
23	12	0.490 2484	7 6241		0.786 2490	3 8592		0.341 0245	1 6736	
24	0	−0.482 6243		−12586	−0.790 1082		+ 6480	−0.342 6981		+2818

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	*Y*		Red. auf 1925.0	*Z*		Red. auf 1925.0
1931	h									
Nov. 24	0	—0.482 6243	7 6609	—12586	—0.790 1082	3 7986	+6480	—0.342 6981	1 6474	+2818
24	12	0.474 9634	7 6972		0.793 9068	3 7379		0.344 3455	1 6210	
25	0	0.467 2662	7 7329	12707	0.797 6447	3 6768	6274	0.345 9665	1 5945	2728
25	12	0.459 5333	7 7681		0.801 3215	3 6155		0.347 5610	1 5680	
26	0	0.451 7652	7 8028	12823	0.804 9370	3 5538	6066	0.349 1290	1 5413	2638
26	12	0.443 9624	7 8368		0.808 4908	3 4919		0.350 6703	1 5145	
27	0	—0.436 1256	7 8703	—12936	—0.811 9827	3 4297	+5856	—0.352 1848	1 4876	+2547
27	12	0.428 2553	7 9034		0.815 4124	3 3673		0.353 6724	1 4605	
28	0	0.420 3519	7 9358	13044	0.818 7797	3 3045	5645	0.355 1329	1 4334	2455
28	12	0.412 4161	7 9677		0.822 0842	3 2415		0.356 5663	1 4061	
29	0	0.404 4484	7 9990	13149	0.825 3257	3 1783	5432	0.357 9724	1 3786	2362
29	12	0.396 4494	8 0298		0.828 5040	3 1147		0.359 3510	1 3511	
30	0	—0.388 4196	8 0600	—13249	—0.831 6187	3 0509	+5217	—0.360 7021	1 3234	+2268
30	12	0.380 3596	8 0896		0.834 6696	2 9868		0.362 0255	1 2957	
Dez. 1	0	0.372 2700	8 1186	13346	0.837 6564	2 9224	5000	0.363 3212	1 2678	2174
1	12	0.364 1514	8 1470		0.840 5788	2 8577		0.364 5890	1 2398	
2	0	0.356 0044	8 1749	13438	0.843 4365	2 7928	4782	0.365 8288	1 2117	2079
2	12	0.347 8295	8 2022		0.846 2293	2 7276		0.367 0405	1 1834	
3	0	—0.339 6273	8 2288	—13526	—0.848 9569	2 6621	+4563	—0.368 2239	1 1550	+1984
3	12	0.331 3985	8 2549		0.851 6190	2 5964		0.369 3789	1 1265	
4	0	0.323 1436	8 2802	13610	0.854 2154	2 5303	4342	0.370 5054	1 0978	1888
4	12	0.314 8634	8 3051		0.856 7457	2 4642		0.371 6032	1 0691	
5	0	0.306 5583	8 3292	13690	0.859 2099	2 3977	4120	0.372 6723	1 0403	1791
5	12	0.298 2291	8 3527		0.861 6076	2 3309		0.373 7126	1 0113	
6	0	—0.289 8764	8 3754	—13765	—0.863 9385	2 2639	+3896	—0.374 7239	9822	+1694
6	12	0.281 5010	8 3977		0.866 2024	2 1967		0.375 7061	9531	
7	0	0.273 1033	8 4191	13836	0.868 3991	2 1292	3671	0.376 6592	9238	1596
7	12	0.264 6842	8 4399		0.870 5283	2 0616		0.377 5830	8944	
8	0	0.256 2443	8 4600	13903	0.872 5899	1 9937	3445	0.378 4774	8649	1498
8	12	0.247 7843	8 4794		0.874 5836	1 9257		0.379 3423	8354	
9	0	—0.239 3049	8 4981	—13966	—0.876 5093	1 8574	+3218	—0.380 1777	8058	+1399
9	12	0.230 8068	8 5161		0.878 3667	1 7890		0.380 9835	7760	
10	0	0.222 2907	8 5333	14024	0.880 1557	1 7204	2990	0.381 7595	7462	1300
10	12	0.213 7574	8 5499		0.881 8761	1 6518		0.382 5057	7164	
11	0	0.205 2075	8 5657	14078	0.883 5279	1 5829	2761	0.383 2221	6865	1201
11	12	0.196 6418	8 5808		0.885 1108	1 5140		0.383 9086	6566	
12	0	—0.188 0610	8 5952	—14128	—0.886 6248	1 4449	+2531	—0.384 5652	6266	+1101
12	12	0.179 4658	8 6090		0.888 0697	1 3757		0.385 1918	5965	
13	0	0.170 8568	8 6220	14173	0.889 4454	1 3064	2300	0.385 7883	5664	1000
13	12	0.162 2348	8 6343		0.890 7518	1 2371		0.386 3547	5364	
14	0	0.153 6005	8 6459	—14214	0.891 9889	1 1677	+2069	0.386 8911	5062	+ 900
14	12	—0.144 9546			—0.893 1566			—0.387 3973		

Welt-Zeit		Mittleres Äquinoktium 1931.0								
		X		Red. auf 1925.0	Y		Red. auf 1925.0	Z		Red. auf 1925.0
1931	h									
Dez. 14	12	—0.144 9546	8 6568		—0.893 1566	1 0982		—0.387 3973	4761	
15	0	0.136 2978	8 6670	—14250	0.894 2548	1 0287	+1837	0.387 8734	4458	+799
15	12	0.127 6308	8 6767		0.895 2835	9590		0.388 3192	4157	
16	0	0.118 9541	8 6855	14282	0.896 2425	8893	1604	0.388 7349	3854	698
16	12	0.110 2686	8 6938		0.897 1318	8197		0.389 1203	3552	
17	0	0.101 5748	8 7012	14309	0.897 9515	7499	1371	0.389 4755	3250	597
17	12	—0.092 8736	8 7080		—0.898 7014	6802		—0.389 8005	2947	
18	0	0.084 1656	8 7141	—14332	0.899 3816	6103	+1137	0.390 0952	2644	+495
18	12	0.075 4515	8 7198		0.899 9919	5405		0.390 3596	2341	
19	0	0.066 7317	8 7246	14351	0.900 5324	4706	904	0.390 5937	2038	394
19	12	0.058 0071	8 7287		0.901 0030	4008		0.390 7975	1736	
20	0	0.049 2784	8 7322	14365	0.901 4038	3309	670	0.390 9711	1432	292
20	12	—0.040 5462	8 7351		—0.901 7347	2612		—0.391 1143	1130	
21	0	0.031 8111	8 7372	—14375	0.901 9959	1912	+ 436	0.391 2273	827	+190
21	12	0.023 0739	8 7389		0.902 1871	1214		0.391 3100	524	
22	0	0.014 3350	8 7397	14380	0.902 3085	514	+ 202	0.391 3624	221	+ 88
22	12	—0.005 5953	8 7399		0.902 3599	184		0.391 3845	81	
23	0	+0.003 1446	8 7395	14381	0.902 3415	883	— 32	0.391 3764	384	— 14
23	12	+0.011 8841	8 7386		—0.902 2532	1581		—0.391 3380	687	
24	0	0.020 6227	8 7368	—14377	0.902 0951	2278	— 267	0.391 2693	989	—116
24	12	0.029 3595	8 7346		0.901 8673	2977		0.391 1704	1291	
25	0	0.038 0941	8 7316	14369	0.901 5696	3673	501	0.391 0413	1593	218
25	12	0.046 8257	8 7280		0.901 2023	4372		0.390 8820	1895	
26	0	0.055 5537	8 7238	14356	0.900 7651	5069	735	0.390 6925	2197	320
26	12	+0.064 2775	8 7190		—0.900 2582	5765		—0.390 4728	2500	
27	0	0.072 9965	8 7135	—14339	0.899 6817	6462	— 969	0.390 2228	2801	—422
27	12	0.081 7100	8 7074		0.899 0355	7158		0.389 9427	3103	
28	0	0.090 4174	8 7006	14317	0.898 3197	7854	1202	0.389 6324	3404	523
28	12	0.099 1180	8 6933		0.897 5343	8551		0.389 2920	3706	
29	0	0.107 8113	8 6853	14291	0.896 6792	9246	1435	0.388 9214	4007	625
29	12	+0.116 4966	8 6766		—0.895 7546	9941		—0.388 5207	4309	
30	0	0.125 1732	8 6672	—14261	0.894 7605	1 0636	—1668	0.388 0898	4610	—726
30	12	0.133 8404	8 6573		0.893 6969	1 1331		0.387 6288	4911	
31	0	0.142 4977	8 6466	14226	0.892 5638	1 2025	1901	0.387 1377	5212	827
31	12	0.151 1443	8 6353		0.891 3613	1 2719		0.386 6165	5513	
32	0	+0.159 7796		—14187	—0.890 0894		—2133	—0.386 0652		—927

Frühlingsäquinoktium	21. März	14ʰ 7ᵐ	Herbstäquinoktium	24. Sept.	0ʰ 24ᵐ
Sommersolstitium	22. Juni	9 28	Wintersolstitium	22. Dez.	19 30

Erdnähe	3. Jan.	10ʰ
Erdferne	5. Juli	22

Tag	0h Welt-Zeit			
	Aberration	Parallaxe	Mittlere Länge $L_\odot$	Mittlere Anomalie $M_\odot$
1931				
Jan. − 7	20.81″	8.95″	271.8035°	350.05°
+ 3	20.82	8.95	281.6600	359.90
13	20.81	8.95	291.5165	9.76
23	20.80	8.94	301.3729	19.61
Febr. 2	20.77	8.93	311.2294	29.47
12	20.74	8.91	321.0859	39.32
22	20.69	8.90	330.9424	49.18
März 4	20.64	8.87	340.7988	59.04
14	20.59	8.85	350.6553	68.89
24	20.53	8.83	0.5118	78.75
April 3	20.47	8.80	10.3683	88.60
13	20.41	8.78	20.2247	98.46
23	20.36	8.75	30.0812	108.32
Mai 3	20.31	8.73	39.9377	118.17
13	20.26	8.71	49.7941	128.03
23	20.22	8.69	59.6506	137.88
Juni 2	20.18	8.68	69.5071	147.74
12	20.16	8.67	79.3636	157.60
22	20.14	8.66	89.2200	167.45
Juli 2	20.13	8.66	99.0765	177.31
12	20.14	8.66	108.9330	187.16
22	20.15	8.66	118.7895	197.02
Aug. 1	20.17	8.67	128.6459	206.88
11	20.20	8.68	138.5024	216.73
21	20.23	8.70	148.3589	226.59
31	20.28	8.72	158.2154	236.44
Sept. 10	20.33	8.74	168.0718	246.30
20	20.38	8.76	177.9283	256.16
30	20.44	8.79	187.7848	266.01
Okt. 10	20.50	8.81	197.6412	275.87
20	20.56	8.84	207.4977	285.72
30	20.61	8.86	217.3542	295.58
Nov. 9	20.67	8.88	227.2107	305.44
19	20.71	8.90	237.0671	315.29
29	20.75	8.92	246.9236	325.15
Dez. 9	20.78	8.93	256.7801	335.00
19	20.81	8.94	266.6366	344.86
29	20.82	8.95	276.4930	354.72
39	20.82	8.95	286.3495	4.57

Phasen des Mondes

1931		Welt-Zeit		1931		Welt-Zeit	
Jan.	4	13h 14.9m	Vollmond	Juli	7	23h 51.6m	Letztes Viertel
	11	5 9.2	Letztes Viertel		15	12 20.0	Neumond
	18	18 35.6	Neumond		22	5 16.1	Erstes Viertel
	27	0 5.5	Erstes Viertel		29	12 47.5	Vollmond
Febr.	3	0 25.9	Vollmond	Aug.	6	16 27.8	Letztes Viertel
	9	16 9.6	Letztes Viertel		13	20 27.0	Neumond
	17	13 10.8	Neumond		20	11 36.3	Erstes Viertel
	25	16 41.9	Erstes Viertel		28	3 9.5	Vollmond
März	4	10 36.1	Vollmond	Sept.	5	7 21.2	Letztes Viertel
	11	5 15.2	Letztes Viertel		12	4 26.4	Neumond
	19	7 50.6	Neumond		18	20 37.3	Erstes Viertel
	27	5 4.2	Erstes Viertel		26	19 44.9	Vollmond
April	2	20 5.5	Vollmond	Okt.	4	20 15.1	Letztes Viertel
	9	20 15.2	Letztes Viertel		11	13 5.9	Neumond
	18	0 59.7	Neumond		18	9 20.0	Erstes Viertel
	25	13 40.1	Erstes Viertel		26	13 33.9	Vollmond
Mai	2	5 14.4	Vollmond	Nov.	3	7 17.5	Letztes Viertel
	9	12 48.2	Letztes Viertel		9	22 55.4	Neumond
	17	15 27.9	Neumond		17	2 13.4	Erstes Viertel
	24	19 38.8	Erstes Viertel		25	7 9.9	Vollmond
	31	14 33.0	Vollmond	Dez.	2	16 50.5	Letztes Viertel
Juni	8	6 18.2	Letztes Viertel		9	10 16.0	Neumond
	16	3 1.7	Neumond		16	22 42.9	Erstes Viertel
	23	0 23.2	Erstes Viertel		24	23 23.5	Vollmond
	30	0 46.9	Vollmond		32	1 23.1	Letztes Viertel

Mond in Erdnähe

1931		Welt-Zeit
Jan.	6	14.8h
Febr.	3	22.4
März	4	10.7
April	1	22.1
April	30	3.5
Mai	27	16.3
Juni	22	1.0
Juli	18	12.4
Aug.	15	9.9
Sept.	12	17.4
Okt.	11	4.5
Nov.	8	15.0
Dez.	6	18.1

Mond in Erdferne

1931		Welt-Zeit
Jan.	22	13.3h
Febr.	18	21.7
März	17	22.8
April	14	8.6
Mai	12	1.3
Juni	8	19.9
Juli	6	14.5
Aug.	3	7.8
Aug.	30	21.4
Sept.	27	2.7
Okt.	24	4.9
Nov.	20	16.8
Dez.	18	11.7

Tag	Scheinbare Rektaszension (0h Welt-Zeit) h m s	Diff. m s	Scheinbare Deklination ° ′	Diff. ° ′	Parallaxe ′ ″	Diff. ″	Halbmesser ′ ″	Diff. ″	Länge °	Breite °
1931 Jan. 0	2 30 23	51 25	+16 39.9	4 41.3	56 22.8	50.5	15 23.2	13.8	40.588	+1.748
1	3 21 48	56 14	+21 21.2	3 45.0	57 13.3	52.2	15 37.0	14.2	53.578	+2.766
2	4 18 2	61 0	+25 6.2	2 24.2	58 5.5	49.7	15 51.2	13.5	67.013	+3.665
3	5 19 2	64 28	+27 30.4	0 40.7	58 55.2	42.4	16 4.7	11.6	80.899	+4.379
4	6 23 30	65 31	+28 11.1	1 15.1	59 37.6	31.1	16 16.3	8.5	95.195	+4.841
5	7 29 1	63 52	+26 56.0	3 7.9	60 8.7	16.9	16 24.8	4.6	109.810	+5.000
6	8 32 53	60 24	+23 48.1	4 42.3	60 25.6	1.7	16 29.4	0.4	124.616	+4.829
7	9 33 17	56 27	+19 5.8	5 49.8	60 27.3	12.3	16 29.8	3.3	139.468	+4.332
8	10 29 44	53 1	+13 16.0	6 29.4	60 15.0	23.6	16 26.5	6.5	154.225	+3.547
9	11 22 45	50 43	+ 6 46.6	6 43.4	59 51.4	31.5	16 20.0	8.5	168.780	+2.539
10	12 13 28	49 40	+ 0 3.2	6 35.7	59 19.9	35.8	16 11.5	9.8	183.066	+1.387
11	13 3 8	49 54	— 6 32.5	6 9.6	58 44.1	37.2	16 1.7	10.1	197.055	+0.174
12	13 53 2	51 9	—12 42.1	5 26.7	58 6.9	36.6	15 51.6	10.0	210.750	—1.026
13	14 44 11	53 4	—18 8.8	4 28.5	57 30.3	34.7	15 41.6	9.4	224.177	—2.144
14	15 37 15	55 8	—22 37.3	3 16.3	56 55.6	32.2	15 32.2	8.8	237.365	—3.125
15	16 32 23	56 38	—25 53.6	1 53.3	56 23.4	29.7	15 23.4	8.1	250.342	—3.926
16	17 29 1	56 59	—27 46.9	0 24.8	55 53.7	27.1	15 15.3	7.4	263.131	—4.516
17	18 26 0	55 51	—28 11.7	1 2.0	55 26.6	24.4	15 7.9	6.7	275.746	—4.874
18	19 21 51	53 28	—27 9.7	2 20.5	55 2.2	21.4	15 1.2	5.8	288.192	—4.994
19	20 15 19	50 27	—24 49.2	3 26.0	54 40.8	17.6	14 55.4	4.8	300.475	—4.879
20	21 5 46	47 21	—21 23.2	4 16.9	54 23.2	13.1	14 50.6	3.5	312.601	—4.542
21	21 53 7	44 44	—17 6.3	4 53.8	54 10.1	7.3	14 47.1	2.0	324.587	—4.006
22	22 37 51	42 50	—12 12.5	5 18.5	54 2.8	0.4	14 45.1	0.1	336.460	—3.298
23	23 20 41	41 51	— 6 54.0	5 32.7	54 2.4	7.6	14 45.0	2.0	348.259	—2.451
24	0 2 32	41 54	— 1 21.3	5 37.2	54 10.0	16.8	14 47.0	4.6	0.043	—1.496
25	0 44 26	43 0	+ 4 15.9	5 32.5	54 26.8	26.4	14 51.6	7.2	11.879	—0.471
26	1 27 26	45 14	+ 9 48.4	5 17.1	54 53.2	36.2	14 58.8	9.9	23.851	+0.588
27	2 12 40	48 38	+15 5.5	4 48.3	55 29.4	45.3	15 8.7	12.3	36.048	+1.641
28	3 1 18	52 58	+19 53.8	4 2.1	56 14.7	52.7	15 21.0	14.4	48.559	+2.643
29	3 54 16	57 48	+23 55.9	2 54.7	57 7.4	57.3	15 35.4	15.6	61.472	+3.543
30	4 52 4	62 11	+26 50.6	1 24.1	58 4.7	57.7	15 51.0	15.7	74.850	+4.283
31	5 54 15	64 53	+28 14.7	0 25.4	59 2.4	52.9	16 6.7	14.4	88.728	+4.801
Febr. 1	6 59 8	65 4	+27 49.3	2 22.3	59 55.3	42.6	16 21.1	11.6	103.092	+5.041
2	8 4 12	62 57	+25 27.0	4 10.5	60 37.9	27.1	16 32.7	7.4	117.872	+4.956
3	9 7 9	59 30	+21 16.5	5 36.3	61 5.0	8.4	16 40.1	2.3	132.942	+4.529
4	10 6 39	56 1	+15 40.2	6 32.6	61 13.4	10.7	16 42.4	2.9	148.137	+3.779
5	11 2 40	53 16	+ 9 7.6	6 58.4	61 2.7	27.6	16 39.5	7.6	163.278	+2.765
6	11 55 56	51 42	+ 2 9.2	6 56.9	60 35.1	40.4	16 31.9	11.0	178.211	+1.570
7	12 47 38	51 19	— 4 47.7	6 32.0	59 54.7	48.0	16 20.9	13.0	192.820	+0.294
8	13 38 57	52 1	—11 19.7	5 47.9	59 6.7	50.7	16 7.9	13.9	207.044	—0.969
9	14 30 58	53 27	—17 7.6	4 47.7	58 16.0	49.6	15 54.0	13.5	220.867	—2.142
10	15 24 25		—21 55.3		57 26.4		15 40.5		234.309	—3.163

Tag	Obere Kulmination in Greenwich							0h Länge, +50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1931	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Jan. 0	3 14 14	137	+20 44.3	+11.4	57.1	20 36.1	2.12	12 43	0.9	3 29	3.2
1	4 11 56	151	+24 46.1	+ 8.5	58.0	21 29.7	2.35	13 7	1.2	4 49	3.4
2	5 15 2	164	+27 24.1	+ 4.4	58.9	22 28.7	2.55	13 41	1.8	6 10	3.3
3	6 22 13	171	+28 11.4	— 0.6	59.6	23 31.7	2.67	14 32	2.5	7 26	2.9
4	—	—	—	—	—	—	—	15 41	3.2	8 30	2.3
5	7 30 38	170	+26 52.6	— 5.9	60.2	0 36.0	2.65	17 4	3.6	9 18	1.7
6	8 37 8	162	+23 31.5	—10.7	60.4	1 38.4	2.53	18 35	3.8	9 52	1.2
7	9 39 37	150	+18 30.5	—14.2	60.4	2 36.8	2.34	20 6	3.7	10 16	0.9
8	10 37 41	140	+12 20.8	—16.4	60.2	3 30.8	2.17	21 33	3.5	10 35	0.7
9	11 32 5	132	+ 5 33.8	—17.3	59.8	4 21.1	2.04	22 56	3.4	10 51	0.6
10	12 24 10	129	— 1 23.1	—17.2	59.2	5 9.1	1.98	—	—	11 5	0.6
11	13 15 25	128	— 8 7.1	—16.3	58.6	5 56.3	1.97	0 18	3.4	11 20	0.6
12	14 7 13	131	—14 18.7	—14.6	57.9	6 44.0	2.02	1 39	3.4	11 36	0.7
13	15 0 40	136	—19 40.3	—12.1	57.3	7 33.4	2.10	3 0	3.4	11 56	0.9
14	15 56 22	142	—23 55.0	— 9.0	56.7	8 25.0	2.20	4 21	3.3	12 21	1.2
15	16 54 14	147	—26 47.9	— 5.3	56.2	9 18.8	2.27	5 37	3.0	12 56	1.7
16	17 53 21	148	—28 8.4	— 1.4	55.7	10 13.8	2.30	6 45	2.5	13 42	2.2
17	18 52 9	145	—27 53.3	+ 2.6	55.2	11 8.5	2.25	7 39	2.0	14 40	2.6
18	19 48 59	139	—26 8.4	+ 6.1	54.9	12 1.3	2.14	8 20	1.5	15 48	2.9
19	20 42 43	130	—23 6.1	+ 9.0	54.5	12 50.9	2.00	8 50	1.1	17 0	3.0
20	21 33 0	122	—19 2.8	+11.2	54.3	13 37.1	1.86	9 11	0.8	18 13	3.0
21	22 20 7	114	—14 14.4	+12.7	54.1	14 20.2	1.74	9 28	0.6	19 23	2.9
22	23 4 48	110	— 8 55.4	+13.8	54.0	15 0.8	1.66	9 42	0.5	20 32	2.9
23	23 48 3	107	— 3 17.8	+14.3	54.1	15 40.0	1.62	9 53	0.5	21 40	2.8
24	0 30 57	108	+ 2 28.0	+14.4	54.3	16 18.9	1.63	10 5	0.5	22 48	2.9
25	1 14 40	111	+ 8 12.2	+14.2	54.7	16 58.5	1.69	10 16	0.5	23 57	2.9
26	2 0 28	118	+13 44.1	+13.4	55.3	17 40.3	1.80	10 29	0.6	—	—
27	2 49 38	128	+18 50.2	+12.0	56.1	18 25.4	1.97	10 44	0.7	1 9	3.1
28	3 43 24	141	+23 12.7	+ 9.7	56.9	19 15.1	2.18	11 5	1.0	2 25	3.2
29	4 42 31	154	+26 28.2	+ 6.4	57.9	20 10.1	2.40	11 33	1.4	3 44	3.3
30	5 46 44	166	+28 10.2	+ 1.9	58.9	21 10.2	2.59	12 14	2.1	5 2	3.1
31	6 54 18	171	+27 55.2	— 3.3	59.9	22 13.6	2.67	13 13	2.8	6 11	2.6
Febr. 1	8 2 19	168	+25 32.8	— 8.5	60.6	23 17.5	2.63	14 30	3.5	7 7	2.0
2	—	—	—	—	—	—	—	16 0	3.8	7 47	1.4
3	9 7 57	159	+21 12.6	—13.0	61.1	0 19.1	2.49	17 34	3.9	8 16	1.1
4	10 9 43	149	+15 20.4	—16.1	61.2	1 16.7	2.32	19 6	3.7	8 38	0.8
5	11 7 35	140	+ 8 30.3	—17.8	61.0	2 10.5	2.17	20 34	3.6	8 55	0.7
6	12 2 30	135	+ 1 16.1	—18.2	60.5	3 1.3	2.08	22 0	3.5	9 10	0.6
7	12 55 51	133	— 5 52.7	—17.4	59.8	3 50.6	2.04	23 24	3.5	9 25	0.6
8	13 48 58	134	—12 31.3	—15.7	58.9	4 39.7	2.06	—	—	9 41	0.7
9	14 43 4	137	—18 19.3	—13.2	58.1	5 29.7	2.12	0 48	3.5	9 59	0.9
10	15 38 51	142	—22 59.6	—10.1	57.2	6 21.4	2.19	2 11	3.4	10 23	1.2

Tag	Scheinbare Rektaszension (h m s)	Diff. (m s)	Scheinbare Deklination (° ′)	Diff. (° ′)	Parallaxe (′ ″)	Diff. (″)	Halbmesser (′ ″)	Diff. (″)	Länge (°)	Breite (°)
1931 Febr. 10	15 24 25	55 6	−21 55.3	3 34.2	57 26.4	45.8	15 40.5	12.4	234.309	−3.163
11	16 19 31	56 23	−25 29.5	2 10.9	56 40.6	40.3	15 28.1	11.0	247.409	−3.990
12	17 15 54	56 42	−27 40.4	0 42.9	56 0.3	34.3	15 17.1	9.4	260.217	−4.597
13	18 12 36	55 45	−28 23.3	0 43.9	55 26.0	28.2	15 7.7	7.6	272.782	−4.968
14	19 8 21	53 39	−27 39.4	2 3.6	54 57.8	22.4	15 0.1	6.1	285.148	−5.100
15	20 2 0	50 49	−25 35.8	3 11.8	54 35.4	17.2	14 54.0	4.7	297.352	−4.996
16	20 52 49	47 51	−22 24.0	4 6.3	54 18.2	12.1	14 49.3	3.3	309.423	−4.670
17	21 40 40	45 13	−18 17.7	4 47.2	54 6.1	7.2	14 46.0	2.0	321.387	−4.139
18	22 25 53	43 13	−13 30.5	5 15.4	53 58.9	2.2	14 44.0	0.6	333.266	−3.430
19	23 9 6	42 1	− 8 15.1	5 32.1	53 56.7	3.4	14 43.4	0.9	345.086	−2.575
20	23 51 7	41 42	− 2 43.0	5 38.5	54 0.1	9.6	14 44.3	2.6	356.881	−1.608
21	0 32 49	42 23	+ 2 55.5	5 34.7	54 9.7	16.6	14 46.9	4.6	8.690	−0.568
22	1 15 12	44 3	+ 8 30.2	5 20.3	54 26.3	24.4	14 51.5	6.6	20.564	+0.505
23	1 59 15	46 45	+13 50.5	4 53.9	54 50.7	32.6	14 58.1	8.9	32.566	+1.569
24	2 46 0	50 22	+18 44.4	4 12.7	55 23.3	41.0	15 7.0	11.2	44.766	+2.580
25	3 36 22	54 36	+22 57.1	3 13.9	56 4.3	48.7	15 18.2	13.2	57.242	+3.494
26	4 30 58	58 50	+26 11.0	1 55.2	56 53.0	54.6	15 31.4	14.9	70.071	+4.260
27	5 29 48	62 7	+28 6.2	0 17.8	57 47.6	57.6	15 46.3	15.7	83.322	+4.827
28	6 31 55	63 32	+28 24.0	1 31.9	58 45.2	56.2	16 2.0	15.3	97.042	+5.143
März 1	7 35 27	62 51	+26 52.1	3 22.0	59 41.4	49.5	16 17.3	13.5	111.246	+5.162
2	8 38 18	60 34	+23 30.1	4 59.5	60 30.9	36.8	16 30.8	10.0	125.898	+4.849
3	9 38 52	57 42	+18 30.6	6 13.8	61 7.7	19.3	16 40.8	5.3	140.909	+4.202
4	10 36 34	55 11	+12 16.8	6 59.2	61 27.0	1.1	16 46.1	0.3	156.141	+3.248
5	11 31 45	53 34	+ 5 17.6	7 14.2	61 25.9	21.3	16 45.8	5.8	171.424	+2.058
6	12 25 19	53 4	− 1 56.6	7 0.7	61 4.6	38.5	16 40.0	10.5	186.581	+0.730
7	13 18 23	53 35	− 8 57.3	6 21.8	60 26.1	50.5	16 29.5	13.8	201.463	−0.627
8	14 11 58	54 52	−15 19.1	5 21.9	59 35.6	56.7	16 15.7	15.4	215.964	−1.911
9	15 6 50	56 23	−20 41.0	4 5.7	58 38.9	57.6	16 0.3	15.7	230.028	−3.040
10	16 3 13	57 32	−24 46.7	2 38.2	57 41.3	54.2	15 44.6	14.8	243.644	−3.960
11	17 0 45	57 42	−27 24.9	1 6.0	56 47.1	48.0	15 29.8	13.0	256.837	−4.640
12	17 58 27	56 36	−28 30.9	0 24.3	55 59.1	40.2	15 16.8	11.0	269.658	−5.065
13	18 55 3	54 21	−28 6.6	1 46.9	55 18.9	31.8	15 5.8	8.7	282.164	−5.238
14	19 49 24	51 24	−26 19.7	2 57.7	54 47.1	23.6	14 57.1	6.4	294.421	−5.167
15	20 40 48	48 21	−23 22.0	3 54.8	54 23.5	15.8	14 50.7	4.3	306.489	−4.867
16	21 29 9	45 36	−19 27.2	4 38.8	54 7.7	8.7	14 46.4	2.4	318.424	−4.358
17	22 14 45	43 32	−14 48.4	5 10.5	53 59.0	2.6	14 44.0	0.7	330.275	−3.664
18	22 58 17	42 13	− 9 37.9	5 30.6	53 56.4	3.0	14 43.3	0.8	342.084	−2.815
19	23 40 30	41 47	− 4 7.3	5 40.2	53 59.4	8.1	14 44.1	2.2	353.890	−1.845
20	0 22 17	42 15	+ 1 32.9	5 39.2	54 7.5	13.0	14 46.3	3.6	5.726	−0.791
21	1 4 32	43 40	+ 7 12.1	5 27.0	54 20.5	18.1	14 49.9	4.9	17.626	+0.304
22	1 48 12	45 59	+12 39.1	5 2.4	54 38.6	23.5	14 54.8	6.4	29.628	+1.396
23	2 34 11		+17 41.5		55 2.1		15 1.2		41.772	+2.438

0h Welt-Zeit

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1931	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Febr. 10	15 38 51	142	—22 59.6	—10.1	57.2	6 21.4	2.19	2 11	3.4	10 23	1.2
11	16 36 26	146	—26 18.1	— 6.4	56.5	7 14.9	2.26	3 29	3.1	10 55	1.5
12	17 35 12	147	—28 4.9	— 2.5	55.8	8 9.5	2.28	4 40	2.7	11 37	2.0
13	18 33 51	145	—28 16.6	+ 1.5	55.2	9 4.1	2.25	5 38	2.1	12 32	2.5
14	19 30 54	139	—26 57.2	+ 5.1	54.8	9 57.1	2.15	6 22	1.6	13 37	2.8
15	20 25 13	132	—24 17.2	+ 8.1	54.5	10 47.3	2.03	6 54	1.1	14 48	3.0
16	21 16 15	123	—20 31.2	+10.6	54.2	11 34.3	1.89	7 17	0.9	16 0	3.0
17	22 4 9	116	—15 54.8	+12.4	54.0	12 18.1	1.77	7 35	0.7	17 12	3.0
18	22 49 29	111	—10 42.6	+13.6	54.0	12 59.4	1.68	7 49	0.5	18 22	2.9
19	23 33 5	108	— 5 7.6	+14.3	54.0	13 38.9	1.63	8 1	0.5	19 30	2.8
20	0 15 56	107	+ 0 38.5	+14.5	54.1	14 17.7	1.62	8 12	0.5	20 37	2.8
21	0 59 4	109	+ 6 25.0	+14.3	54.3	14 56.8	1.65	8 24	0.5	21 46	2.9
22	1 43 37	114	+12 1.0	+13.6	54.7	15 37.3	1.73	8 35	0.5	22 56	3.0
23	2 30 43	122	+17 14.3	+12.4	55.2	16 20.4	1.87	8 49	0.7	0 10	3.1
24	3 21 30	132	+21 49.8	+10.4	55.9	17 7.1	2.04	9 7	0.9	—	—
25	4 16 50	144	+25 28.9	+ 7.7	56.7	17 58.3	2.24	9 30	1.2	1 26	3.2
26	5 17 0	156	+27 49.3	+ 3.9	57.6	18 54.4	2.43	10 4	1.7	2 42	3.1
27	6 21 10	164	+28 28.5	— 0.7	58.6	19 54.4	2.56	10 53	2.4	3 54	2.8
28	7 27 21	166	+27 10.1	— 5.8	59.6	20 56.5	2.59	11 59	3.1	4 55	2.2
März 1	8 33 3	162	+23 51.2	—10.7	60.5	21 58.1	2.52	13 22	3.6	5 41	1.7
2	9 36 17	154	+18 45.4	—14.6	61.1	22 57.2	2.40	14 54	3.9	6 14	1.2
3	10 36 18	146	+12 18.7	—17.4	61.4	23 53.1	2.27	16 27	3.9	6 39	0.9
4	—	—	—	—	—	—	—	17 59	3.8	6 57	0.7
5	11 33 29	140	+ 5 3.7	—18.7	61.4	0 46.2	2.17	19 29	3.7	7 13	0.6
6	12 28 55	137	— 2 25.9	—18.6	61.0	1 37.6	2.12	20 57	3.7	7 28	0.6
7	13 23 52	138	— 9 38.8	—17.3	60.4	2 28.5	2.13	22 25	3.6	7 44	0.7
8	14 19 30	141	—16 7.8	—15.0	59.5	3 20.0	2.18	23 52	3.5	8 2	0.8
9	15 16 38	145	—21 30.1	—11.8	58.5	4 13.1	2.25	—	—	8 24	1.1
10	16 15 26	149	—25 28.1	— 8.0	57.5	5 7.8	2.31	1 15	3.3	8 53	1.4
11	17 15 21	150	—27 50.4	— 3.8	56.6	6 3.6	2.33	2 31	2.9	9 33	1.9
12	18 15 6	148	—28 32.9	+ 0.3	55.8	6 59.2	2.29	3 34	2.3	10 24	2.4
13	19 13 12	142	—27 40.0	+ 4.1	55.1	7 53.3	2.20	4 23	1.7	11 27	2.8
14	20 8 29	134	—25 22.5	+ 7.3	54.6	8 44.4	2.06	4 58	1.3	12 37	3.0
15	21 0 22	125	—21 54.8	+ 9.9	54.3	9 32.3	1.92	5 24	0.9	13 49	3.0
16	21 48 59	118	—17 32.4	+11.9	54.1	10 16.8	1.80	5 43	0.7	15 1	3.0
17	22 34 53	112	—12 29.6	+13.3	54.0	10 58.7	1.70	5 58	0.6	16 11	2.9
18	23 18 52	108	— 6 59.4	+14.2	54.0	11 38.6	1.64	6 10	0.5	17 20	2.9
19	0 1 54	107	— 1 13.6	+14.6	54.0	12 17.6	1.62	6 21	0.5	18 28	2.8
20	0 44 57	108	+ 4 36.7	+14.5	54.2	12 56.6	1.64	6 32	0.5	19 36	2.9
21	1 29 4	112	+10 19.8	+14.0	54.5	13 36.6	1.71	6 44	0.5	20 46	3.0
22	2 15 17	119	+15 43.3	+12.9	54.9	14 18.8	1.82	6 56	0.6	21 59	3.1
23	3 4 37	128	+20 32.5	+11.1	55.3	15 4.1	1.96	7 12	0.8	23 14	3.1

Tag	Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite
	0h Welt-Zeit									
1931	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
März 23	2 34 11	49 8	+17 41.5	4 23.6	55 2.1	29.3	15 1.2	7.8	41.772	+2.438
24	3 23 19	52 51	+22 5.1	3 28.5	55 31.4	35.2	15 9.0	9.8	54.104	+3.384
25	4 16 10	56 36	+25 33.6	2 15.8	56 6.6	41.1	15 18.8	11.2	66.674	+4.188
26	5 12 46	59 40	+27 49.4	0 46.7	56 47.7	46.2	15 30.0	12.6	79.536	+4.801
27	6 12 26	61 16	+28 36.1	0 54.2	57 33.9	49.6	15 42.6	13.5	92.738	+5.181
28	7 13 42	61 6	+27 41.9	2 38.2	58 23.5	50.1	15 56.1	13.6	106.322	+5.286
29	8 14 48	59 30	+25 3.7	4 15.5	59 13.6	46.7	16 9.7	12.8	120.306	+5.088
30	9 14 18	57 13	+20 48.2	5 36.7	60 0.3	38.4	16 22.5	10.4	134.683	+4.571
31	10 11 31	55 4	+15 11.5	6 35.7	60 38.7	25.1	16 32.9	6.9	149.403	+3.745
April 1	11 6 35	53 41	+ 8 35.8	7 8.4	61 3.8	7.9	16 39.8	2.1	164.378	+2.651
2	12 0 16	53 20	+ 1 27.4	7 13.0	61 11.7	11.1	16 41.9	3.0	179.482	+1.364
3	12 53 36	54 3	− 5 45.6	6 49.7	61 0.6	29.2	16 38.9	8.0	194.566	−0.018
4	13 47 39	55 36	−12 35.3	6 0.0	60 31.4	43.8	16 30.9	11.9	209.482	−1.383
5	14 43 15	57 31	−18 35.3	4 47.7	59 47.6	53.4	16 19.0	14.5	224.100	−2.631
6	15 40 46	59 5	−23 23.0	3 18.7	58 54.2	57.4	16 4.5	15.7	238.329	−3.680
7	16 39 51	59 36	−26 41.7	1 41.1	57 56.8	56.4	15 48.8	15.4	252.119	−4.481
8	17 39 27	58 35	−28 22.8	0 3.5	57 0.4	51.6	15 33.4	14.0	265.463	−5.010
9	18 38 2	56 11	−28 26.3	1 25.6	56 8.8	43.9	15 19.4	12.0	278.389	−5.265
10	19 34 13	52 54	−27 0.7	2 41.5	55 24.9	35.0	15 7.4	9.5	290.949	−5.259
11	20 27 7	49 27	−24 19.2	3 42.5	54 49.9	25.2	14 57.9	6.9	303.210	−5.011
12	21 16 34	46 21	−20 36.7	4 29.2	54 24.7	15.8	14 51.0	4.3	315.247	−4.546
13	22 2 55	43 58	−16 7.5	5 3.3	54 8.9	6.9	14 46.7	1.8	327.134	−3.891
14	22 46 53	42 26	−11 4.2	5 26.4	54 2.0	1.1	14 44.9	0.2	338.942	−3.075
15	23 29 19	41 51	− 5 37.8	5 39.2	54 3.1	7.8	14 45.1	2.2	350.735	−2.129
16	0 11 10	42 11	+ 0 1.4	5 41.8	54 10.9	13.6	14 47.3	3.7	2.569	−1.089
17	0 53 21	43 29	+ 5 43.2	5 33.4	54 24.5	18.1	14 51.0	4.9	14.491	+0.006
18	1 36 50	45 42	+11 16.6	5 12.5	54 42.6	22.0	14 55.9	6.0	26.539	+1.110
19	2 22 32	48 44	+16 29.1	4 36.7	55 4.6	25.3	15 1.9	6.9	38.746	+2.178
20	3 11 16	52 18	+21 5.8	3 44.3	55 29.9	28.1	15 8.8	7.7	51.137	+3.158
21	4 3 34	55 53	+24 50.1	2 34.2	55 58.0	31.0	15 16.5	8.4	63.732	+4.001
22	4 59 27	58 47	+27 24.3	1 8.1	56 29.0	33.6	15 24.9	9.1	76.551	+4.659
23	5 58 14	60 16	+28 32.4	0 29.1	57 2.6	35.9	15 34.0	9.8	89.612	+5.090
24	6 58 30	60 1	+28 3.3	2 9.2	57 38.5	37.5	15 43.8	10.2	102.931	+5.258
25	7 58 31	58 22	+25 54.1	3 42.9	58 16.0	37.5	15 54.0	10.3	116.522	+5.140
26	8 56 53	56 2	+22 11.2	5 3.2	58 53.5	35.3	16 4.3	9.6	130.391	+4.723
27	9 52 55	53 51	+17 8.0	6 5.0	59 28.8	30.0	16 13.9	8.2	144.532	+4.016
28	10 46 46	52 23	+11 3.0	6 45.6	59 58.8	21.3	16 22.1	5.7	158.924	+3.046
29	11 39 9	52 0	+ 4 17.4	7 3.0	60 20.1	9.1	16 27.8	2.5	173.517	+1.867
30	12 31 9	52 44	− 2 45.6	6 55.3	60 29.2	5.3	16 30.3	1.4	188.239	+0.555
Mai 1	13 23 53	54 31	− 9 40.9	6 21.7	60 23.9	20.2	16 28.9	5.5	202.992	−0.795
2	14 18 24	56 57	−16 2.6	5 22.6	60 3.7	33.8	16 23.4	9.2	217.664	−2.083
3	15 15 21		−21 25.2		59 29.9		16 14.2		232.141	−3.218

Tag	Obere Kulmination in Greenwich							0^h Länge, +50° Breite			
	AR.	Änderung für 1^h westl. Länge	Dekl.	Änderung für 1^h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1^h westl. Länge	Aufgang	Änderung für 1^h westl. Länge	Untergang	Änderung für 1^h westl. Länge
1931	h m s	s	° '	'	'	h m	m	h m	m	h m	m
März 23	3 4 37	128	+20 32.5	+11.1	55.3	15 4.1	1.96	7 12	0.8	23 14	3.1
24	3 57 52	138	+24 30.3	+ 8.6	55.9	15 53.2	2.14	7 34	1.1	—	—
25	4 55 22	149	+27 17.2	+ 5.2	56.6	16 46.6	2.31	8 3	1.5	0 30	3.1
26	5 56 37	157	+28 33.3	+ 1.0	57.4	17 43.8	2.44	8 44	2.1	1 42	2.8
27	7 0 10	160	+28 2.8	— 3.6	58.2	18 43.2	2.49	9 42	2.7	2 46	2.4
28	8 3 59	158	+25 39.4	— 8.3	59.1	19 43.0	2.46	10 56	3.3	3 36	1.8
29	9 6 13	153	+21 28.8	—12.5	59.9	20 41.1	2.37	12 21	3.6	4 13	1.3
30	10 5 55	146	+15 48.1	—15.8	60.6	21 36.7	2.26	13 51	3.8	4 39	1.0
31	11 3 11	141	+ 9 1.9	—17.9	61.0	22 29.9	2.18	15 22	3.8	5 0	0.8
April 1	11 58 51	138	+ 1 39.1	—18.8	61.2	23 21.4	2.13	16 52	3.7	5 17	0.7
2	—	—	—	—	—	—	—	18 21	3.7	5 32	0.6
3	12 54 4	139	— 5 49.4	—18.4	61.0	0 12.6	2.14	19 50	3.7	5 47	0.7
4	13 50 6	142	—12 52.7	—16.7	60.5	1 4.5	2.20	21 20	3.7	6 4	0.8
5	14 47 54	147	—19 1.9	—13.9	59.7	1 58.2	2.28	22 49	3.6	6 24	1.0
6	15 47 50	152	—23 52.0	—10.2	58.8	2 54.1	2.37	—	—	6 50	1.3
7	16 49 26	155	—27 4.7	— 5.8	57.8	3 51.6	2.41	0 12	3.2	7 26	1.7
8	17 51 21	154	—28 31.1	— 1.4	56.8	4 49.4	2.39	1 23	2.9	8 14	2.3
9	18 51 47	148	—28 13.5	+ 2.8	56.0	5 45.7	2.29	2 20	2.2	9 15	2.7
10	19 49 14	139	—26 22.9	+ 6.3	55.2	6 39.1	2.15	3 0	1.4	10 24	3.0
11	20 42 53	129	—23 15.7	+ 9.2	54.7	7 28.7	1.98	3 28	1.0	11 37	3.0
12	21 32 48	120	—19 8.8	+11.3	54.3	8 14.5	1.84	3 49	0.8	12 49	3.0
13	22 19 33	114	—14 17.7	+12.9	54.1	8 57.2	1.73	4 6	0.6	14 0	2.9
14	23 4 2	109	— 8 55.4	+13.9	54.0	9 37.6	1.65	4 19	0.5	15 9	2.9
15	23 47 16	107	— 3 13.5	+14.5	54.1	10 16.8	1.63	4 30	0.5	16 17	2.9
16	0 30 16	108	+ 2 37.3	+14.7	54.3	10 55.8	1.63	4 41	0.5	17 26	2.9
17	1 14 8	112	+ 8 26.0	+14.3	54.5	11 35.6	1.69	4 52	0.5	18 35	3.0
18	1 59 54	118	+14 0.1	+13.4	54.9	12 17.3	1.80	5 4	0.6	19 48	3.1
19	2 48 34	126	+19 4.8	+11.8	55.3	13 1.9	1.93	5 20	0.7	21 2	3.1
20	3 40 58	136	+23 22.6	+ 9.5	55.8	13 50.2	2.10	5 39	1.0	22 19	3.2
21	4 37 25	146	+26 34.0	+ 6.3	56.3	14 42.6	2.26	6 6	1.3	23 34	2.9
22	5 37 31	154	+28 19.3	+ 2.4	56.8	15 38.6	2.39	6 43	1.9	—	—
23	6 39 54	157	+28 22.9	— 2.1	57.5	16 36.9	2.45	7 35	2.5	0 40	2.5
24	7 42 37	156	+26 38.2	— 6.6	58.1	17 35.5	2.42	8 43	3.1	1 34	2.0
25	8 43 49	150	+23 9.5	—10.7	58.8	18 32.6	2.33	10 3	3.5	2 14	1.4
26	9 42 29	143	+18 10.8	—14.1	59.4	19 27.2	2.22	11 29	3.6	2 42	1.0
27	10 38 38	138	+12 2.1	—16.5	59.9	20 19.2	2.13	12 56	3.6	3 4	0.8
28	11 33 0	135	+ 5 6.8	—17.9	60.3	21 9.5	2.08	14 23	3.6	3 22	0.7
29	12 26 46	135	— 2 10.0	—18.3	60.5	21 59.2	2.08	15 50	3.6	3 37	0.6
30	13 21 16	138	— 9 21.1	—17.5	60.4	22 49.6	2.14	17 17	3.6	3 51	0.6
Mai 1	14 17 42	144	—15 58.1	—15.4	60.1	23 42.0	2.23	18 45	3.7	4 7	0.7
2	—	—	—	—	—	—	—	20 15	3.7	4 25	0.9
3	15 16 50	151	—21 32.5	—12.3	59.5	0 37.0	2.35	21 43	3.5	4 48	1.1

Tag		0h Welt-Zeit									
		Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1931		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Mai	3	15 15 21	59 19	—21 25.2	4 1.1	59 29.9	44.2	16 14.2	12.1	232.141	—3.218
	4	16 14 40	60 48	—25 26.3	2 24.1	58 45.7	50.2	16 2.1	13.6	246.322	—4.128
	5	17 15 28	60 35	—27 50.4	0 41.4	57 55.5	51.7	15 48.5	14.1	260.134	—4.770
	6	18 16 3	58 35	—28 31.8	0 56.1	57 3.8	49.2	15 34.4	13.4	273.540	—5.129
	7	19 14 38	55 13	—27 35.7	2 20.4	56 14.6	43.3	15 21.0	11.8	286.540	—5.209
	8	20 9 51	51 22	—25 15.3	3 27.9	55 31.3	35.1	15 9.2	9.6	299.164	—5.032
	9	21 1 13	47 45	—21 47.4	4 18.8	54 56.2	25.5	14 59.6	6.9	311.469	—4.626
	10	21 48 58	44 52	—17 28.6	4 55.6	54 30.7	15.4	14 52.7	4.2	323.527	—4.021
	11	22 33 50	42 52	—12 33.0	5 20.6	54 15.3	5.3	14 48.5	1.5	335.420	—3.250
	12	23 16 42	41 55	— 7 12.4	5 35.6	54 10.0	4.0	14 47.0	1.1	347.230	—2.346
	13	23 58 37	41 59	— 1 36.8	5 41.1	54 14.0	12.5	14 48.1	3.4	359.040	—1.342
	14	0 40 36	43 6	+ 4 4.3	5 36.6	54 26.5	19.3	14 51.5	5.3	10.925	—0.276
	15	1 23 42	45 12	+ 9 40.9	5 20.3	54 45.8	24.7	14 56.8	6.7	22.949	+0.812
	16	2 8 54	48 14	+15 1.2	4 49.7	55 10.5	28.3	15 3.5	7.7	35.164	+1.878
	17	2 57 8	51 56	+19 50.9	4 1.9	55 38.8	30.2	15 11.2	8.2	47.607	+2.873
	18	3 49 4	55 47	+23 52.8	2 55.4	56 9.0	30.8	15 19.4	8.4	60.298	+3.744
	19	4 44 51	58 58	+26 48.2	1 30.6	56 39.8	30.2	15 27.8	8.3	73.241	+4.439
	20	5 43 49	60 42	+28 18.8	0 6.9	57 10.0	28.9	15 36.1	7.8	86.427	+4.913
	21	6 44 31	60 31	+28 11.9	1 48.2	57 38.9	27.2	15 43.9	7.5	99.835	+5.126
	22	7 45 2	58 39	+26 23.7	3 22.9	58 6.1	25.1	15 51.4	6.8	113.442	+5.057
	23	8 43 41	55 57	+23 0.8	4 43.2	58 31.2	22.6	15 58.2	6.2	127.223	+4.697
	24	9 39 38	53 18	+18 17.6	5 44.7	58 53.8	19.4	16 4.4	5.2	141.155	+4.057
	25	10 32 56	51 22	+12 32.9	6 26.2	59 13.2	15.1	16 9.6	4.1	155.218	+3.168
	26	11 24 18	50 30	+ 6 6.7	6 47.1	59 28.3	9.1	16 13.7	2.5	169.396	+2.078
	27	12 14 48	50 52	— 0 40.4	6 46.7	59 37.4	1.5	16 16.2	0.4	183.662	+0.854
	28	13 5 40	52 26	— 7 27.1	6 24.3	59 38.9	7.6	16 16.6	2.0	197.983	—0.427
	29	13 58 6	54 54	—13 51.4	5 38.6	59 31.3	17.4	16 14.6	4.8	212.309	—1.680
	30	14 53 0	57 46	—19 30.0	4 29.7	59 13.9	26.9	16 9.8	7.3	226.574	—2.819
	31	15 50 46	60 10	—23 59.7	3 1.2	58 47.0	35.0	16 2.5	9.5	240.704	—3.772
Juni	1	16 50 56	61 8	—27 0.9	1 20.6	58 12.0	40.6	15 53.0	11.1	254.618	—4.482
	2	17 52 4	60 10	—28 21.5	0 21.1	57 31.4	43.1	15 41.9	11.7	268.250	—4.921
	3	18 52 14	57 21	—28 0.4	1 53.3	56 48.3	42.2	15 30.2	11.5	281.551	—5.078
	4	19 49 35	53 33	—26 7.1	3 9.2	56 6.1	38.2	15 18.7	10.4	294.502	—4.969
	5	20 43 8	49 36	—22 57.9	4 6.8	55 27.9	31.7	15 8.3	8.7	307.114	—4.617
	6	21 32 44	46 12	—18 51.1	4 47.9	54 56.2	23.3	14 59.6	6.3	319.423	—4.057
	7	22 18 56	43 40	—14 3.2	5 15.3	54 32.9	13.7	14 53.3	3.8	331.490	—3.324
	8	23 2 36	42 11	— 8 47.9	5 31.7	54 19.2	3.4	14 49.5	0.9	343.390	—2.456
	9	23 44 47	41 47	— 3 16.2	5 38.8	54 15.8	6.8	14 48.6	1.9	355.210	—1.488
	10	0 26 34	42 29	+ 2 22.6	5 36.7	54 22.6	16.5	14 50.5	4.5	7.038	—0.456
	11	1 9 3	44 18	+ 7 59.3	5 24.4	54 39.1	24.8	14 55.0	6.7	18.962	+0.604
	12	1 53 21	47 8	+13 23.7	4 59.4	55 3.9	31.5	15 1.7	8.6	31.064	+1.649
	13	2 40 29		+18 23.1		55 35.4		15 10.3		43.413	+2.637

Tag	Obere Kulmination in Greenwich							0h Länge, +50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1931	h m s	s	° '	'	'	h m	m	h m	m	h m	m
Mai 3	15 16 50	151	−21 32.5	−12.3	59.5	0 37.0	2.35	21 43	3.5	4 48	1.1
4	16 18 39	157	−25 38.9	− 8.2	58.7	1 34.7	2.45	23 2	3.0	5 19	1.5
5	17 21 59	159	−27 59.7	− 3.5	57.8	2 34.0	2.47	—	—	6 2	2.1
6	18 24 53	155	−28 29.4	+ 1.0	56.9	3 32.7	2.41	0 8	2.4	6 59	2.6
7	19 25 13	146	−27 15.4	+ 5.0	56.1	4 29.0	2.27	0 56	1.7	8 7	2.9
8	20 21 39	136	−24 34.1	+ 8.3	55.4	5 21.3	2.09	1 30	1.2	9 20	3.1
9	21 13 47	125	−20 45.3	+10.7	54.8	6 9.4	1.92	1 54	0.9	10 34	3.0
10	22 2 7	117	−16 6.8	+12.4	54.4	6 53.7	1.78	2 12	0.7	11 46	3.0
11	22 47 32	111	−10 53.9	+13.6	54.2	7 35.0	1.68	2 26	0.5	12 56	2.9
12	23 31 9	108	− 5 18.3	+14.3	54.2	8 14.6	1.63	2 38	0.5	14 4	2.8
13	0 14 6	108	+ 0 29.4	+14.6	54.3	8 53.5	1.63	2 49	0.5	15 12	2.9
14	0 57 33	110	+ 6 19.3	+14.5	54.6	9 32.9	1.67	3 0	0.5	16 22	2.9
15	1 42 39	116	+12 0.2	+13.8	54.9	10 13.9	1.76	3 12	0.5	17 33	3.0
16	2 30 30	124	+17 18.2	+12.6	55.4	10 57.7	1.90	3 26	0.7	18 48	3.2
17	3 22 5	134	+21 56.5	+10.5	55.9	11 45.2	2.07	3 44	0.9	20 5	3.2
18	4 17 56	145	+25 34.5	+ 7.5	56.4	12 37.0	2.24	4 8	1.2	21 22	3.1
19	5 17 49	154	+27 50.7	+ 3.7	56.9	13 32.8	2.39	4 42	1.7	22 32	2.7
20	6 20 28	158	+28 26.7	− 0.8	57.5	14 31.3	2.47	5 30	2.3	23 31	2.1
21	7 23 46	157	+27 13.3	− 5.3	57.9	15 30.5	2.45	6 34	2.7	—	—
22	8 25 33	151	+24 13.9	− 9.5	58.4	16 28.2	2.35	7 52	3.2	0 15	1.6
23	9 24 30	143	+19 42.7	−12.9	58.8	17 23.1	2.22	9 16	3.5	0 46	1.1
24	10 20 22	136	+14 0.0	−15.5	59.1	18 14.9	2.10	10 41	3.5	1 10	0.9
25	11 13 51	132	+ 7 28.4	−17.0	59.4	19 4.3	2.03	12 6	3.5	1 28	0.7
26	12 6 7	130	+ 0 30.2	−17.7	59.6	19 52.5	2.00	13 30	3.5	1 43	0.6
27	12 58 34	132	− 6 31.7	−17.3	59.7	20 40.8	2.04	14 54	3.5	1 57	0.6
28	13 52 34	138	−13 13.3	−16.0	59.5	21 30.7	2.13	16 19	3.6	2 12	0.6
29	14 49 14	146	−19 9.1	−13.5	59.3	22 23.3	2.26	17 46	3.6	2 28	0.7
30	15 49 6	153	−23 53.2	−10.0	58.8	23 19.1	2.39	19 14	3.6	2 48	1.0
31	—	—	—	—	—	—	—	20 37	3.2	3 15	1.4
Juni 1	16 51 40	159	−27 2.5	− 5.7	58.2	0 17.6	2.47	21 50	2.7	3 53	1.9
2	17 55 20	159	−28 22.9	− 1.0	57.5	1 17.1	2.47	22 46	2.0	4 44	2.4
3	18 57 46	153	−27 53.5	+ 3.4	56.7	2 15.4	2.37	23 27	1.4	5 48	2.9
4	19 56 54	143	−25 46.0	+ 7.1	56.0	3 10.5	2.20	23 55	1.0	7 1	3.1
5	20 51 43	131	−22 20.1	+ 9.9	55.4	4 1.2	2.02	—	—	8 16	3.1
6	21 42 13	121	−17 56.4	+11.9	54.8	4 47.7	1.86	0 16	0.8	9 30	3.0
7	22 29 8	114	−12 52.9	+13.3	54.5	5 30.5	1.73	0 32	0.6	10 41	2.9
8	23 13 34	109	− 7 23.7	+14.1	54.3	6 10.9	1.65	0 44	0.5	11 50	2.9
9	23 56 40	107	− 1 40.1	+14.5	54.3	6 49.9	1.62	0 56	0.5	12 58	2.8
10	0 39 41	108	+ 4 8.2	+14.5	54.4	7 28.9	1.64	1 7	0.5	14 6	2.9
11	1 23 50	113	+ 9 51.4	+14.0	54.8	8 9.0	1.72	1 18	0.5	15 16	3.0
12	2 10 22	120	+15 17.9	+13.1	55.2	8 51.5	1.84	1 32	0.6	16 29	3.1
13	3 0 24	130	+20 12.7	+11.4	55.8	9 37.4	2.00	1 48	0.8	17 46	3.2

Tag	0h Welt-Zeit Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite
1931	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Juni 13	2 40 29	50 52	+18 23.1	4 18.5	55 35.4	36.0	15 10.3	9.8	43.413	+2.637
14	3 31 21	55 3	+22 41.6	3 18.4	56 11.4	38.0	15 20.1	10.4	56.057	+3.517
15	4 26 24	58 53	+26 0.0	1 58.0	56 49.4	37.2	15 30.5	10.1	69.025	+4.238
16	5 25 17	61 27	+27 58.0	0 20.9	57 26.6	34.2	15 40.6	9.3	82.316	+4.747
17	6 26 44	61 55	+28 18.9	1 24.0	58 0.8	28.9	15 49.9	7.9	95.903	+5.002
18	7 28 39	60 21	+26 54.9	3 4.9	58 29.7	22.6	15 57.8	6.1	109.735	+4.971
19	8 29 0	57 29	+23 50.0	4 31.0	58 52.3	15.8	16 3.9	4.3	123.746	+4.644
20	9 26 29	54 20	+19 19.0	5 36.5	59 8.1	9.0	16 8.2	2.5	137.870	+4.031
21	10 20 49	51 46	+13 42.5	6 19.5	59 17.1	3.1	16 10.7	0.8	152.043	+3.169
22	11 12 35	50 13	+ 7 23.0	6 41.0	59 20.2	2.4	16 11.5	0.6	166.218	+2.110
23	12 2 48	49 57	+ 0 42.0	6 41.8	59 17.8	7.4	16 10.9	2.0	180.365	+0.922
24	12 52 45	50 55	− 5 59.8	6 22.8	59 10.4	12.0	16 8.9	3.3	194.463	−0.318
25	13 43 40	52 58	−12 22.6	5 43.4	58 58.4	16.7	16 5.6	4.5	208.499	−1.532
26	14 36 38	55 41	−18 6.0	4 43.6	58 41.7	21.5	16 1.1	5.9	222.454	−2.646
27	15 32 19	58 22	−22 49.6	3 24.5	58 20.2	26.1	15 55.2	7.1	236.305	−3.593
28	16 30 41	60 9	−26 14.1	1 50.7	57 54.1	30.1	15 48.1	8.2	250.016	−4.320
29	17 30 50	60 11	−28 4.8	0 10.9	57 24.0	33.0	15 39.9	9.0	263.547	−4.793
30	18 31 1	58 21	−28 15.7	1 24.7	56 51.0	34.4	15 30.9	9.4	276.853	−4.996
Juli 1	19 29 22	55 3	−26 51.0	2 47.1	56 16.6	33.8	15 21.5	9.2	289.901	−4.931
2	20 24 25	51 13	−24 3.9	3 51.9	55 42.8	30.8	15 12.3	8.4	302.670	−4.618
3	21 15 38	47 34	−20 12.0	4 39.0	55 12.0	25.9	15 3.9	7.0	315.161	−4.088
4	22 3 12	44 39	−15 33.0	5 10.4	54 46.1	19.0	14 56.9	5.2	327.398	−3.376
5	22 47 51	42 41	−10 22.6	5 29.1	54 27.1	10.6	14 51.7	2.9	339.425	−2.524
6	23 30 32	41 46	− 4 53.5	5 37.5	54 16.5	1.0	14 48.8	0.3	351.305	−1.569
7	0 12 18	41 57	+ 0 44.0	5 36.6	54 15.5	9.1	14 48.5	2.5	3.115	−0.551
8	0 54 15	43 14	+ 6 20.6	5 26.5	54 24.6	19.3	14 51.0	5.3	14.940	+0.493
9	1 37 29	45 37	+11 47.1	5 5.4	54 43.9	28.9	14 56.3	7.8	26.873	+1.524
10	2 23 6	49 2	+16 52.5	4 30.9	55 12.8	37.0	15 4.1	10.1	39.004	+2.504
11	3 12 8	53 12	+21 23.4	3 39.1	55 49.8	43.2	15 14.2	11.8	51.413	+3.387
12	4 5 20	57 31	+25 2.5	2 27.1	56 33.0	46.4	15 26.0	12.6	64.168	+4.126
13	5 2 51	61 1	+27 29.6	0 55.6	57 19.4	46.1	15 38.6	12.6	77.312	+4.671
14	6 3 52	62 44	+28 25.2	0 49.6	58 5.5	42.0	15 51.2	11.4	90.855	+4.973
15	7 6 36	62 11	+27 35.6	2 37.1	58 47.5	34.3	16 2.6	9.4	104.769	+4.993
16	8 8 47	59 49	+24 58.5	4 13.8	59 21.8	23.9	16 12.0	6.5	118.990	+4.708
17	9 8 36	56 37	+20 44.7	5 29.9	59 45.7	12.0	16 18.5	3.3	133.423	+4.120
18	10 5 13	53 38	+15 14.8	6 21.0	59 57.7	0.2	16 21.8	0.0	147.960	+3.262
19	10 58 51	51 30	+ 8 53.8	6 47.0	59 57.9	10.2	16 21.8	2.8	162.497	+2.189
20	11 50 21	50 34	+ 2 6.8	6 49.5	59 47.7	18.4	16 19.0	5.0	176.946	+0.980
21	12 40 55	50 53	− 4 42.7	6 30.7	59 29.3	24.1	16 14.0	6.6	191.249	−0.281
22	13 31 48	52 18	−11 13.4	5 52.2	59 5.2	27.7	16 7.4	7.5	205.371	−1.510
23	14 24 6	54 32	−17 5.6	4 54.8	58 37.5	29.6	15 59.9	8.1	219.299	−2.633
24	15 18 38		−22 0.4		58 7.9		15 51.8		233.031	−3.586

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	0h Länge, +50° Breite: Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1931	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Juni 13	3 0 24	130	+20 12.7	+11.4	55.8	9 37.4	2.00	1 48	0.8	17 46	3.2
14	3 54 50	142	+24 16.7	+ 8.8	56.5	10 27.8	2.20	2 10	1.1	19 3	3.2
15	4 53 54	153	+27 7.1	+ 5.2	57.1	11 22.8	2.38	2 40	1.5	20 18	2.9
16	5 56 44	160	+28 21.7	+ 0.9	57.7	12 21.5	2.50	3 23	2.1	21 22	2.4
17	7 1 18	161	+27 45.1	— 3.9	58.3	13 22.0	2.51	4 23	2.8	22 12	1.8
18	8 5 4	157	+25 15.7	— 8.4	58.7	14 21.6	2.44	5 38	3.3	22 48	1.3
19	9 6 2	148	+21 5.9	—12.2	59.1	15 18.5	2.30	7 2	3.6	23 14	1.0
20	10 3 29	139	+15 37.7	—15.0	59.2	16 11.8	2.15	8 29	3.6	23 34	0.7
21	10 57 46	133	+ 9 16.3	—16.7	59.3	17 2.0	2.04	9 54	3.5	23 50	0.6
22	11 49 59	129	+ 2 25.9	—17.4	59.3	17 50.2	1.98	11 18	3.5	—	—
23	12 41 32	129	— 4 30.8	—17.2	59.2	18 37.7	1.99	12 41	3.5	0 4	0.6
24	13 33 51	133	—11 12.2	—16.1	59.0	19 25.9	2.05	14 4	3.5	0 18	0.6
25	14 28 14	139	—17 16.1	—14.1	58.7	20 16.2	2.15	15 28	3.5	0 34	0.7
26	15 25 34	147	—22 19.8	—11.1	58.4	21 9.5	2.29	16 54	3.5	0 52	0.9
27	16 25 58	154	—26 1.1	— 7.2	57.9	22 5.8	2.40	18 17	3.3	1 16	1.2
28	17 28 29	157	—28 2.4	— 2.8	57.4	23 4.2	2.45	19 33	2.9	1 48	1.6
29	—	—	—	—	—	—	—	20 36	2.3	2 32	2.1
30	18 31 8	155	—28 15.6	+ 1.7	56.8	0 2.7	2.41	21 23	1.6	3 31	2.7
Juli 1	19 31 42	147	—26 45.7	+ 5.7	56.3	0 59.2	2.28	21 55	1.2	4 41	3.0
2	20 28 32	137	—23 48.0	+ 9.0	55.7	1 52.0	2.11	22 19	0.9	5 57	3.1
3	21 21 6	126	—19 42.9	+11.3	55.1	2 40.4	1.94	22 36	0.6	7 12	3.1
4	22 9 43	117	—14 50.4	+12.9	54.7	3 25.0	1.79	22 50	0.5	8 25	3.0
5	22 55 16	111	— 9 27.3	+13.9	54.4	4 6.5	1.68	23 2	0.5	9 35	2.9
6	23 38 52	108	— 3 46.8	+14.4	54.3	4 46.0	1.63	23 13	0.5	10 44	2.8
7	0 21 43	107	+ 2 0.3	+14.5	54.3	5 24.8	1.62	23 24	0.5	11 51	2.8
8	1 5 1	110	+ 7 44.5	+14.1	54.5	6 4.1	1.67	23 36	0.6	13 0	2.9
9	1 50 2	116	+13 15.6	+13.4	54.9	6 45.0	1.76	23 51	0.7	14 11	3.0
10	2 37 59	125	+18 21.4	+12.0	55.4	7 28.9	1.91	—	—	15 25	3.1
11	3 30 0	136	+22 45.8	+ 9.9	56.1	8 16.9	2.10	0 10	0.9	16 42	3.2
12	4 26 48	148	+26 8.2	+ 6.8	56.8	9 9.6	2.30	0 36	1.3	17 58	3.0
13	5 28 14	159	+28 5.2	+ 2.8	57.7	10 6.9	2.47	1 13	1.9	19 8	2.6
14	6 32 52	164	+28 15.8	— 2.0	58.4	11 7.5	2.55	2 6	2.6	20 4	2.0
15	7 38 17	162	+26 29.1	— 6.9	59.1	12 8.7	2.53	3 16	3.2	20 46	1.5
16	8 41 54	155	+22 50.4	—11.2	59.6	13 8.3	2.41	4 40	3.6	21 16	1.1
17	9 42 12	146	+17 38.9	—14.5	59.9	14 4.3	2.27	6 9	3.7	21 38	0.8
18	10 38 56	138	+11 21.8	—16.7	60.0	14 57.1	2.13	7 37	3.6	21 56	0.7
19	11 32 53	132	+ 4 27.6	—17.7	59.9	15 47.0	2.04	9 4	3.6	22 11	0.6
20	12 25 20	130	— 2 37.3	—17.6	59.6	16 35.4	2.00	10 28	3.5	22 25	0.6
21	13 17 42	132	— 9 28.9	—16.6	59.2	17 23.6	2.03	11 52	3.5	22 40	0.7
22	14 11 19	137	—15 45.3	—14.7	58.7	18 13.2	2.11	13 16	3.5	22 57	0.8
23	15 7 15	143	—21 5.5	—11.9	58.2	19 5.0	2.22	14 41	3.5	23 19	1.0
24	16 5 56	150	—25 9.6	— 8.3	57.7	19 59.6	2.33	16 4	3.4	23 47	1.4

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1931										
Juli 24	15h 18m 38s	56m 58s	−22° 0.4'	3° 40.1'	58' 7.9"	30.4"	15' 51.8"	8.3"	233.031°	−3.586°
25	16 15 36	58 53	−25 40.5	2 11.4	57 37.5	30.6	15 43.5	8.3	246.571	−4.322
26	17 14 29	59 25	−27 51.9	0 35.1	57 6.9	30.3	15 35.2	8.2	259.917	−4.811
27	18 13 54	58 14	−28 27.0	0 59.9	56 36.6	29.7	15 27.0	8.1	273.066	−5.037
28	19 12 8	55 34	−27 27.1	2 25.2	56 6.9	28.5	15 18.9	7.8	286.008	−4.999
29	20 7 42	52 5	−25 1.9	3 35.2	55 38.4	26.5	15 11.1	7.2	298.735	−4.711
30	20 59 47	48 31	−21 26.7	4 28.0	55 11.9	23.6	15 3.9	6.4	311.245	−4.200
31	21 48 18	45 28	−16 58.7	5 4.4	54 48.3	19.3	14 57.5	5.3	323.543	−3.499
Aug. 1	22 33 46	43 14	−11 54.3	5 26.8	54 29.0	13.7	14 52.2	3.7	335.647	−2.647
2	23 17 0	41 56	− 6 27.5	5 37.5	54 15.3	6.7	14 48.5	1.9	347.592	−1.687
3	23 58 56	41 40	− 0 50.0	5 38.0	54 8.6	1.5	14 46.6	0.5	359.425	−0.659
4	0 40 36	42 26	+ 4 48.0	5 29.2	54 10.1	10.7	14 47.1	2.9	11.211	+0.394
5	1 23 2	44 15	+10 17.2	5 10.4	54 20.8	20.6	14 50.0	5.6	23.023	+1.435
6	2 7 17	47 5	+15 27.6	4 39.7	54 41.4	30.3	14 55.6	8.2	34.945	+2.425
7	2 54 22	50 49	+20 7.3	3 54.7	55 11.7	39.6	15 3.8	10.8	47.063	+3.322
8	3 45 11	55 2	+24 2.0	2 51.9	55 51.3	47.3	15 14.6	12.9	59.465	+4.085
9	4 40 13	58 58	+26 53.9	1 30.0	56 38.6	52.4	15 27.5	14.3	72.226	+4.670
10	5 39 11	61 44	+28 23.9	0 8.6	57 31.0	54.1	15 41.8	14.7	85.407	+5.031
11	6 40 55	62 32	+28 15.3	1 56.4	58 25.1	51.0	15 56.5	13.9	99.037	+5.124
12	7 43 27	61 18	+26 18.9	3 40.9	59 16.1	43.3	16 10.4	11.8	113.106	+4.916
13	8 44 45	58 45	+22 38.0	5 10.4	59 59.4	30.8	16 22.2	8.4	127.560	+4.394
14	9 43 30	55 55	+17 27.6	6 16.2	60 30.2	15.2	16 30.6	4.1	142.301	+3.572
15	10 39 25	53 36	+11 11.4	6 54.7	60 45.4	1.4	16 34.7	0.3	157.199	+2.499
16	11 33 1	52 16	+ 4 16.7	7 5.7	60 44.0	16.9	16 34.4	4.6	172.114	+1.250
17	12 25 17	52 8	− 2 49.0	6 51.2	60 27.1	29.3	16 29.8	8.0	186.918	−0.076
18	13 17 25	53 5	− 9 40.2	6 13.6	59 57.8	37.6	16 21.8	10.3	201.510	−1.380
19	14 10 30	54 52	−15 53.8	5 15.5	59 20.2	42.0	16 11.5	11.4	215.823	−2.574
20	15 5 22	56 57	−21 9.3	4 0.1	58 38.2	42.9	16 0.1	11.7	229.827	−3.588
21	16 2 19	58 36	−25 9.4	2 31.4	57 55.3	41.4	15 48.4	11.3	243.516	−4.372
22	17 0 55	59 9	−27 40.8	0 55.6	57 13.9	38.2	15 37.1	10.4	256.904	−4.898
23	18 0 4	58 8	−28 36.4	0 39.4	56 35.7	34.4	15 26.7	9.3	270.015	−5.156
24	18 58 12	55 42	−27 57.0	2 6.0	56 1.3	30.2	15 17.4	8.3	282.874	−5.147
25	19 53 54	52 25	−25 51.0	3 18.8	55 31.1	26.1	15 9.1	7.1	295.507	−4.886
26	20 46 19	49 0	−22 32.2	4 15.4	55 5.0	22.0	15 2.0	6.0	307.937	−4.398
27	21 35 19	45 57	−18 16.8	4 56.3	54 43.0	17.8	14 56.0	4.8	320.187	−3.712
28	22 21 16	43 37	−13 20.5	5 22.9	54 25.2	13.4	14 51.2	3.7	332.278	−2.866
29	23 4 53	42 8	− 7 57.6	5 37.1	54 11.8	8.3	14 47.5	2.2	344.236	−1.900
30	23 47 1	41 37	− 2 20.5	5 40.3	54 3.5	2.5	14 45.3	0.7	356.092	−0.858
31	0 28 38	42 1	+ 3 19.8	5 33.3	54 1.0	4.2	14 44.6	1.1	7.887	+0.218
Sept. 1	1 10 39	43 24	+ 8 53.1	5 16.2	54 5.2	11.8	14 45.7	3.3	19.666	+1.284
2	1 54 3	45 42	+14 9.3	4 47.9	54 17.0	20.4	14 49.0	5.5	31.489	+2.302
3	2 39 45		+18 57.2		54 37.4		14 54.5		43.422	+3.229

Tag	Obere Kulmination in Greenwich: AR.	Änderung für 1ʰ westl. Länge	Dekl.	Änderung für 1ʰ westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1ʰ westl. Länge	0ʰ Länge, +50° Breite: Aufgang	Änderung für 1ʰ westl. Länge	Untergang	Änderung für 1ʰ westl. Länge
1931	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Juli 24	16 5 56	150	−25 9.6	− 8.3	57.7	19 59.6	2.33	16 4	3.4	23 47	1.4
25	17 6 55	154	−27 40.4	− 4.2	57.2	20 56.5	2.40	17 22	3.0	—	—
26	18 8 44	154	−28 27.8	+ 0.2	56.7	21 54.2	2.39	18 28	2.5	0 27	1.9
27	19 9 23	149	−27 32.1	+ 4.4	56.1	22 50.8	2.30	19 20	1.8	1 20	2.5
28	20 7 7	140	−25 3.9	+ 7.9	55.6	23 44.4	2.15	19 56	1.3	2 26	2.9
29	—	—	—	—	—	—	—	20 22	1.0	3 40	3.1
30	21 0 58	129	−21 20.9	+10.6	55.2	0 34.2	1.99	20 42	0.7	4 56	3.1
31	21 50 54	120	−16 42.6	+12.5	54.8	1 20.1	1.84	20 56	0.6	6 10	3.0
Aug. 1	22 37 32	113	−11 27.2	+13.7	54.5	2 2.6	1.72	21 9	0.5	7 21	2.9
2	23 21 47	109	− 5 49.7	+14.3	54.2	2 42.8	1.64	21 20	0.5	8 30	2.9
3	0 4 46	107	− 0 2.5	+14.5	54.1	3 21.8	1.61	21 31	0.5	9 38	2.8
4	0 47 37	108	+ 5 43.9	+14.3	54.2	4 0.6	1.63	21 42	0.5	10 46	2.9
5	1 31 28	112	+11 19.4	+13.6	54.4	4 40.4	1.70	21 55	0.6	11 55	2.9
6	2 17 32	119	+16 33.3	+12.5	54.8	5 22.4	1.82	22 12	0.8	13 7	3.1
7	3 6 58	129	+21 12.2	+10.7	55.4	6 7.7	1.98	22 34	1.1	14 22	3.1
8	4 0 42	140	+24 59.1	+ 8.1	56.1	6 57.4	2.17	23 5	1.6	15 37	3.1
9	4 59 8	152	+27 33.3	+ 4.6	56.9	7 51.7	2.35	23 49	2.2	16 50	2.8
10	6 1 41	160	+28 32.9	+ 0.2	57.8	8 50.2	2.50	—	—	17 52	2.3
11	7 6 37	163	+27 40.7	− 4.6	58.8	9 51.0	2.54	0 51	2.9	18 40	1.7
12	8 11 27	160	+24 51.2	− 9.4	59.6	10 51.7	2.50	2 10	3.5	19 15	1.3
13	9 14 5	153	+20 14.8	−13.5	60.3	11 50.3	2.38	3 38	3.7	19 41	0.9
14	10 13 34	145	+14 14.1	−16.4	60.7	12 45.7	2.24	5 10	3.8	20 0	0.7
15	11 10 6	138	+ 7 18.8	−18.0	60.8	13 38.1	2.14	6 40	3.7	20 16	0.6
16	12 4 38	135	− 0 0.4	−18.4	60.6	14 28.5	2.08	8 8	3.6	20 31	0.6
17	12 58 28	135	− 7 14.4	−17.6	60.2	15 18.3	2.08	9 35	3.6	20 46	0.6
18	13 52 58	138	−13 57.0	−15.8	59.6	16 8.7	2.13	11 1	3.6	21 2	0.7
19	14 49 11	143	−19 44.5	−13.0	58.8	17 0.8	2.22	12 28	3.6	21 22	1.0
20	15 47 42	149	−24 16.5	− 9.5	58.1	17 55.3	2.31	13 53	3.5	21 49	1.3
21	16 48 17	153	−27 16.3	− 5.4	57.4	18 51.8	2.38	15 14	3.1	22 25	1.8
22	17 49 48	154	−28 33.7	− 1.0	56.7	19 49.2	2.38	16 24	2.6	23 14	2.3
23	18 50 28	149	−28 7.6	+ 3.2	56.1	20 45.8	2.31	17 19	2.0	—	—
24	19 48 37	141	−26 6.7	+ 6.8	55.6	21 39.8	2.18	17 59	1.4	0 16	2.8
25	20 43 10	132	−22 46.4	+ 9.7	55.1	22 30.3	2.03	18 27	1.0	1 27	3.0
26	21 33 54	122	−18 25.1	+11.9	54.7	23 17.0	1.87	18 48	0.8	2 42	3.1
27	—	—	—	—	—	—	—	19 4	0.6	3 56	3.1
28	22 21 16	115	−13 20.5	+13.4	54.4	0 0.3	1.75	19 16	0.5	5 9	3.0
29	23 6 6	110	− 7 48.1	+14.2	54.2	0 41.0	1.66	19 28	0.5	6 18	2.9
30	23 49 21	107	− 2 1.5	+14.6	54.1	1 20.2	1.62	19 38	0.4	7 27	2.8
31	0 32 4	107	+ 3 47.7	+14.5	54.0	1 58.9	1.62	19 49	0.5	8 34	2.8
Sept. 1	1 15 20	110	+ 9 28.9	+13.9	54.1	2 38.1	1.66	20 2	0.6	9 43	2.9
2	2 0 12	115	+14 51.0	+12.9	54.3	3 18.9	1.75	20 16	0.7	10 54	3.0
3	2 47 45	123	+19 41.9	+11.3	54.7	4 2.4	1.88	20 36	1.0	12 6	3.1

Tag		Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	Parallaxe	Diff.	Halbmesser	Diff.	Länge	Breite
		0ʰ Welt-Zeit									
1931		h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Sept.	3	2 39 45	48 52	+18 57.2	4 6.6	54 37.4	29.3	14 54.5	8.0	43.422	+3.229
	4	3 28 37	52 36	+23 3.8	3 10.2	55 6.7	38.3	15 2.5	10.4	55.537	+4.027
	5	4 21 13	56 20	+26 14.0	1 57.1	55 45.0	46.7	15 12.9	12.7	67.912	+4.657
	6	5 17 33	59 24	+28 11.1	0 27.9	56 31.7	53.3	15 25.6	14.6	80.622	+5.079
	7	6 16 57	60 59	+28 39.0	1 12.8	57 25.0	57.0	15 40.2	15.5	93.732	+5.254
	8	7 17 56	60 49	+27 26.2	2 56.5	58 22.0	56.7	15 55.7	15.4	107.289	+5.148
	9	8 18 45	59 14	+24 29.7	4 32.6	59 18.7	51.1	16 11.1	13.9	121.308	+4.737
	10	9 17 59	57 0	+19 57.1	5 51.7	60 9.8	39.8	16 25.0	10.9	135.764	+4.018
	11	10 14 59	54 58	+14 5.4	6 46.9	60 49.6	23.6	16 35.9	6.4	150.582	+3.014
	12	11 9 57	53 42	+ 7 18.5	7 14.6	61 13.2	4.5	16 42.3	1.3	165.647	+1.786
	13	12 3 39	53 29	+ 0 3.9	7 13.3	61 17.7	14.9	16 43.6	4.1	180.810	+0.423
	14	12 57 8	54 21	− 7 9.4	6 44.1	61 2.8	31.9	16 39.5	8.7	195.914	−0.966
	15	13 51 29	56 4	−13 53.5	5 49.3	60 30.9	44.1	16 30.8	12.0	210.817	−2.272
	16	14 47 33	58 6	−19 42.8	4 33.2	59 46.8	51.3	16 18.8	14.0	225.407	−3.401
	17	15 45 39	59 43	−24 16.0	3 1.1	58 55.5	53.3	16 4.8	14.5	239.617	−4.290
	18	16 45 22	60 12	−27 17.1	1 21.2	58 2.2	51.3	15 50.3	14.0	253.420	−4.903
	19	17 45 34	59 5	−28 38.3	0 17.8	57 10.9	46.6	15 36.3	12.7	266.821	−5.227
	20	18 44 39	56 31	−28 20.5	1 47.8	56 24.3	40.4	15 23.6	11.0	279.853	−5.272
	21	19 41 10	53 5	−26 32.7	3 3.4	55 43.9	33.5	15 12.6	9.1	292.561	−5.054
	22	20 34 15	49 30	−23 29.3	4 2.9	55 10.4	26.6	15 3.5	7.3	304.998	−4.602
	23	21 23 45	46 19	−19 26.4	4 46.8	54 43.8	20.0	14 56.2	5.4	317.216	−3.947
	24	22 10 4	43 52	−14 39.6	5 16.7	54 23.8	14.0	14 50.8	3.8	329.265	−3.125
	25	22 53 56	42 18	− 9 22.9	5 34.4	54 9.8	8.4	14 47.0	2.3	341.192	−2.174
	26	23 36 14	41 37	− 3 48.5	5 41.1	54 1.4	3.2	14 44.7	0.9	353.037	−1.135
	27	0 17 51	41 51	+ 1 52.6	5 37.3	53 58.2	2.0	14 43.8	0.6	4.838	−0.050
	28	0 59 42	43 1	+ 7 29.9	5 22.6	54 0.2	7.5	14 44.4	2.0	16.634	+1.036
	29	1 42 43	45 3	+12 52.5	4 56.7	54 7.7	13.3	14 46.4	3.6	28.461	+2.081
	30	2 27 46	47 49	+17 49.2	4 17.9	54 21.0	19.9	14 50.0	5.4	40.360	+3.041
Okt.	1	3 15 35	51 6	+22 7.1	3 24.9	54 40.9	26.8	14 55.4	7.4	52.377	+3.877
	2	4 6 41	54 29	+25 32.0	2 16.8	55 7.7	34.3	15 2.8	9.3	64.563	+4.551
	3	5 1 10	57 18	+27 48.8	0 54.3	55 42.0	41.7	15 12.1	11.4	76.972	+5.025
	4	5 58 28	58 58	+28 43.1	0 38.8	56 23.7	48.3	15 23.5	13.1	89.663	+5.268
	5	6 57 26	59 8	+28 4.3	2 16.3	57 12.0	53.1	15 36.6	14.5	102.693	+5.252
	6	7 56 34	58 3	+25 48.0	3 50.2	58 5.1	54.9	15 51.1	14.9	116.109	+4.953
	7	8 54 37	56 16	+21 57.8	5 12.7	59 0.0	52.4	16 6.0	14.3	129.944	+4.363
	8	9 50 53	54 34	+16 45.1	6 17.9	59 52.4	44.6	16 20.3	12.2	144.202	+3.491
	9	10 45 27	53 30	+10 27.2	7 0.8	60 37.0	31.4	16 32.5	8.5	158.848	+2.371
	10	11 38 57	53 26	+ 3 26.4	7 17.6	61 8.4	13.7	16 41.0	3.8	173.806	+1.067
	11	12 32 23	54 29	− 3 51.2	7 5.8	61 22.1	6.3	16 44.8	1.8	188.955	−0.327
	12	13 26 52	56 30	−10 57.0	6 24.8	61 15.8	25.7	16 43.0	7.0	204.146	−1.701
	13	14 23 22	58 59	−17 21.8	5 15.9	60 50.1	41.6	16 36.0	11.3	219.219	−2.945
	14	15 22 21		−22 37.7		60 8.5		16 24.7		234.027	−3.966

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1931	h m s	s	° '	'	'	h m	m	h m	m	h m	m
Sept. 3	2 47 45	123	+19 41.9	+11.3	54.7	4 2.4	1.88	20 36	1.0	12 6	3.1
4	3 38 53	133	+23 47.1	+ 9.0	55.2	4 49.5	2.05	21 2	1.3	13 21	3.1
5	4 34 13	144	+26 48.9	+ 6.0	55.9	5 40.7	2.22	21 39	1.9	14 33	2.9
6	5 33 38	153	+28 28.3	+ 2.2	56.8	6 36.1	2.38	22 32	2.5	15 39	2.5
7	6 36 6	159	+28 27.2	− 2.3	57.7	7 34.4	2.47	23 41	3.2	16 32	1.9
8	7 39 44	159	+26 34.9	− 7.0	58.7	8 34.0	2.47	—	—	17 12	1.4
9	8 42 33	155	+22 52.0	−11.4	59.7	9 32.7	2.40	1 4	3.6	17 41	1.0
10	9 43 10	148	+17 31.9	−15.1	60.5	10 29.2	2.30	2 34	3.8	18 2	0.8
11	10 41 17	142	+10 57.6	−17.6	61.1	11 23.2	2.20	4 5	3.8	18 20	0.7
12	11 37 28	139	+ 3 38.2	−18.8	61.3	12 15.3	2.15	5 36	3.7	18 35	0.6
13	12 32 49	138	− 3 54.7	−18.7	61.2	13 6.6	2.14	7 5	3.7	18 50	0.6
14	13 28 37	141	−11 9.9	−17.3	60.8	13 58.3	2.18	8 35	3.7	19 6	0.7
15	14 25 58	146	−17 37.7	−14.8	60.1	14 51.5	2.26	10 5	3.7	19 25	0.9
16	15 25 32	152	−22 52.2	−11.3	59.2	15 47.0	2.36	11 34	3.6	19 50	1.2
17	16 27 12	156	−26 32.7	− 7.0	58.3	16 44.6	2.43	13 0	3.4	20 23	1.6
18	17 29 51	157	−28 26.8	− 2.5	57.4	17 43.1	2.44	14 16	2.9	21 8	2.2
19	18 31 44	152	−28 32.6	+ 1.9	56.6	18 40.9	2.36	15 17	2.4	22 7	2.7
20	19 31 3	144	−26 58.6	+ 5.8	55.8	19 36.1	2.23	16 1	1.6	23 17	3.0
21	20 26 39	134	−24 0.5	+ 8.9	55.2	20 27.7	2.06	16 32	1.1	—	—
22	21 18 15	124	−19 56.7	+11.3	54.8	21 15.2	1.90	16 55	0.8	0 31	3.1
23	22 6 17	116	−15 5.0	+12.9	54.4	21 59.2	1.77	17 12	0.6	1 45	3.1
24	22 51 34	111	− 9 41.0	+14.0	54.2	22 40.4	1.68	17 25	0.5	2 58	3.0
25	23 35 4	107	− 3 57.9	+14.5	54.0	23 19.8	1.62	17 37	0.5	4 8	2.9
26	0 17 48	107	+ 1 52.3	+14.6	54.0	23 58.5	1.61	17 47	0.4	5 16	2.8
27	—	—	—	—	—	—	—	17 58	0.5	6 24	2.9
28	1 0 48	109	+ 7 38.5	+14.2	54.0	0 37.5	1.65	18 10	0.5	7 33	2.9
29	1 45 6	113	+13 9.3	+13.3	54.1	1 17.7	1.72	18 24	0.6	8 43	3.0
30	2 31 38	120	+18 12.4	+11.9	54.4	2 0.2	1.83	18 41	0.8	9 55	3.0
Okt. 1	3 21 17	129	+22 33.7	+ 9.8	54.7	2 45.8	1.97	19 4	1.1	11 8	3.0
2	4 14 37	138	+25 57.1	+ 7.0	55.2	3 35.0	2.13	19 36	1.6	12 21	2.9
3	5 11 39	147	+28 5.5	+ 3.6	55.8	4 28.0	2.27	20 22	2.2	13 28	2.6
4	6 11 38	153	+28 42.8	− 0.5	56.6	5 23.9	2.37	21 23	2.8	14 25	2.1
5	7 13 8	154	+27 37.7	− 4.9	57.4	6 21.3	2.40	22 38	3.3	15 9	1.6
6	8 14 24	152	+24 47.5	− 9.2	58.4	7 18.4	2.35	—	—	15 41	1.1
7	9 14 8	147	+20 19.1	−13.0	59.3	8 14.1	2.28	0 2	3.6	16 4	0.9
8	10 11 49	142	+14 27.9	−16.1	60.2	9 7.7	2.20	1 31	3.7	16 24	0.7
9	11 7 48	139	+ 7 35.8	−18.1	60.9	9 59.6	2.14	3 0	3.7	16 39	0.6
10	12 3 2	138	+ 0 9.1	−18.9	61.3	10 50.7	2.13	4 29	3.7	16 54	0.6
11	12 58 46	141	− 7 22.2	−18.5	61.4	11 42.4	2.18	5 58	3.8	17 9	0.7
12	13 56 13	147	−14 25.9	−16.6	61.1	12 35.7	2.28	7 30	3.8	17 27	0.8
13	14 56 18	154	−20 29.9	−13.5	60.5	13 31.7	2.39	9 2	3.8	17 49	1.1
14	15 59 9	160	−25 5.5	− 9.3	59.6	14 30.5	2.49	10 34	3.7	18 19	1.5

Tag	0ʰ Welt-Zeit									
	Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1931	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Okt. 14	15 22 21	61 13	−22 37.7	3 44.6	60 8.5	52.2	16 24.7	14.2	234.027	−3.966
15	16 23 34	62 12	−26 22.3	1 59.8	59 16.3	57.3	16 10.5	15.6	248.458	−4.707
16	17 25 46	61 20	−28 22.1	0 12.8	58 19.0	57.0	15 54.9	15.6	262.446	−5.141
17	18 27 6	58 39	−28 34.9	1 25.1	57 22.0	52.9	15 39.3	14.4	275.972	−5.272
18	19 25 45	54 52	−27 9.8	2 47.0	56 29.1	45.9	15 24.9	12.5	289.056	−5.121
19	20 20 37	50 48	−24 22.8	3 50.9	55 43.2	37.2	15 12.4	10.2	301.749	−4.722
20	21 11 25	47 11	−20 31.9	4 37.6	55 6.0	29.1	15 2.2	7.8	314.117	−4.110
21	21 58 36	44 21	−15 54.3	5 9.8	54 36.9	19.9	14 54.4	5.5	326.233	−3.326
22	22 42 57	42 31	−10 44.5	5 29.8	54 17.0	11.9	14 48.9	3.2	338.172	−2.409
23	23 25 28	41 38	− 5 14.7	5 39.4	54 5.1	4.6	14 45.7	1.2	350.004	−1.396
24	0 7 6	41 44	+ 0 24.7	5 38.7	54 0.5	1.8	14 44.5	0.4	1.791	−0.328
25	0 48 50	42 46	+ 6 3.4	5 27.8	54 2.3	7.2	14 44.9	2.0	13.587	+0.752
26	1 31 36	44 42	+11 31.2	5 5.2	54 9.5	12.1	14 46.9	3.3	25.436	+1.803
27	2 16 18	47 23	+16 36.4	4 29.6	54 21.6	16.6	14 50.2	4.5	37.376	+2.781
28	3 3 41	50 34	+21 6.0	3 39.3	54 38.2	20.8	14 54.7	5.7	49.434	+3.643
29	3 54 15	53 48	+24 45.3	2 33.8	54 59.0	25.3	15 0.4	6.9	61.639	+4.349
30	4 48 3	56 28	+27 19.1	1 14.1	55 24.3	30.0	15 7.3	8.1	74.015	+4.861
31	5 44 31	58 0	+28 33.2	0 15.6	55 54.3	34.7	15 15.4	9.5	86.588	+5.149
Nov. 1	6 42 31	58 3	+28 17.6	1 49.1	56 29.0	39.3	15 24.9	10.7	99.386	+5.188
2	7 40 34	56 51	+26 28.5	3 18.9	57 8.3	43.1	15 35.6	11.8	112.442	+4.962
3	8 37 25	54 59	+23 9.6	4 38.8	57 51.4	45.3	15 47.4	12.3	125.788	+4.467
4	9 32 24	53 9	+18 30.8	5 44.3	58 36.7	44.7	15 59.7	12.2	139.454	+3.710
5	10 25 33	51 57	+12 46.5	6 32.3	59 21.4	40.5	16 11.9	11.0	153.456	+2.716
6	11 17 30	51 46	+ 6 14.2	6 59.9	60 1.9	31.6	16 22.9	8.6	167.792	+1.531
7	12 9 16	52 46	− 0 45.7	7 3.9	60 33.5	18.6	16 31.5	5.1	182.428	+0.223
8	13 2 2	54 57	− 7 49.6	6 41.1	60 52.1	2.1	16 36.6	0.6	197.295	−1.117
9	13 56 59	57 57	−14 30.7	5 49.6	60 54.2	15.5	16 37.2	4.3	212.281	−2.388
10	14 54 56	61 6	−20 20.3	4 29.9	60 38.7	32.0	16 32.9	8.7	227.250	−3.491
11	15 56 2	63 20	−24 50.2	2 48.4	60 6.7	44.9	16 24.2	12.2	242.053	−4.344
12	16 59 22	63 36	−27 38.6	0 56.4	59 21.8	52.9	16 12.0	14.5	256.555	−4.898
13	18 2 58	61 35	−28 35.0	0 51.7	58 28.9	55.8	15 57.5	15.1	270.656	−5.135
14	19 4 33	57 47	−27 43.3	2 24.7	57 33.1	53.8	15 42.4	14.7	284.301	−5.069
15	20 2 20	53 17	−25 18.6	3 37.0	56 39.3	48.3	15 27.7	13.1	297.486	−4.732
16	20 55 37	49 0	−21 41.6	4 29.1	55 51.0	40.1	15 14.6	11.0	310.243	−4.168
17	21 44 37	45 33	−17 12.5	5 4.3	55 10.9	30.7	15 3.6	8.4	322.635	−3.421
18	22 30 10	43 9	−12 8.2	5 26.0	54 40.2	20.7	14 55.2	5.6	334.743	−2.536
19	23 13 19	41 51	− 6 42.2	5 36.9	54 19.5	10.9	14 49.6	2.9	346.654	−1.555
20	23 55 10	41 36	− 1 5.3	5 38.4	54 8.6	1.7	14 46.7	0.5	358.458	−0.517
21	0 36 46	42 26	+ 4 33.1	5 30.3	54 6.9	6.3	14 46.2	1.7	10.236	+0.540
22	1 19 12	44 12	+10 3.4	5 11.6	54 13.2	13.1	14 47.9	3.6	22.061	+1.574
23	2 3 24	46 52	+15 15.0	4 40.5	54 26.3	18.4	14 51.5	5.0	33.993	+2.546
24	2 50 16		+19 55.5		54 44.7		14 56.5		46.080	+3.414

Tag	Obere Kulmination in Greenwich							0h Länge, +50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1931	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Okt. 14	15 59 9	160	−25 5.5	− 9.3	59.6	14 30.5	2.49	10 34	3.7	18 19	1.5
15	17 3 47	162	−27 52.1	− 4.5	58.7	15 31.0	2.53	11 58	3.2	19 0	2.0
16	18 8 12	159	−28 42.0	+ 0.3	57.7	16 31.3	2.48	13 7	2.5	19 56	2.6
17	19 10 11	150	−27 41.8	+ 4.6	56.7	17 29.2	2.33	13 59	1.9	21 3	3.0
18	20 8 8	139	−25 8.2	+ 8.1	55.9	18 23.0	2.15	14 36	1.3	22 18	3.1
19	21 1 35	128	−21 22.3	+10.6	55.2	19 12.4	1.97	15 1	0.9	23 34	3.1
20	21 50 52	119	−16 43.7	+12.5	54.7	19 57.6	1.81	15 19	0.7	—	—
21	22 36 55	112	−11 29.1	+13.7	54.3	20 39.6	1.70	15 34	0.6	0 47	3.0
22	23 20 47	108	− 5 52.1	+14.3	54.1	21 19.4	1.63	15 46	0.5	1 58	2.9
23	0 3 35	107	− 0 4.1	+14.6	54.0	21 58.2	1.61	15 56	0.4	3 6	2.8
24	0 46 24	108	+ 5 44.1	+14.4	54.0	22 37.0	1.63	16 7	0.5	4 14	2.8
25	1 30 18	112	+11 21.6	+13.7	54.2	23 16.8	1.70	16 18	0.5	5 22	2.9
26	2 16 16	118	+16 36.1	+12.4	54.4	23 58.7	1.80	16 31	0.6	6 32	3.0
27	—	—	—	—	—	—	—	16 48	0.8	7 44	3.0
28	3 5 10	127	+21 13.4	+10.6	54.6	0 43.5	1.94	17 9	1.0	8 57	3.1
29	3 57 35	136	+24 57.3	+ 8.0	55.0	1 31.9	2.09	17 38	1.5	10 11	3.0
30	4 53 35	144	+27 30.3	+ 4.7	55.5	2 23.8	2.23	18 19	2.0	11 20	2.7
31	5 52 28	150	+28 36.6	+ 0.8	56.0	3 18.6	2.32	19 14	2.6	12 20	2.2
Nov. 1	6 52 50	151	+28 5.1	− 3.4	56.6	4 14.9	2.35	20 24	3.1	13 8	1.7
2	7 52 59	149	+25 52.9	− 7.6	57.3	5 10.9	2.31	21 43	3.4	13 42	1.2
3	8 51 33	144	+22 5.9	−11.3	58.0	6 5.4	2.23	23 7	3.5	14 8	0.9
4	9 47 59	138	+16 56.9	−14.4	58.8	6 57.7	2.14	—	—	14 27	0.7
5	10 42 31	135	+10 43.2	−16.6	59.6	7 48.2	2.08	0 33	3.6	14 44	0.6
6	11 36 4	134	+ 3 45.3	−18.0	60.2	8 37.7	2.06	1 58	3.6	14 58	0.6
7	12 29 52	136	− 3 33.6	−18.4	60.7	9 27.4	2.10	3 24	3.6	15 13	0.6
8	13 25 19	142	−10 46.4	−17.5	60.9	10 18.8	2.20	4 53	3.7	15 29	0.7
9	14 23 39	150	−17 22.3	−15.3	60.8	11 13.0	2.33	6 24	3.8	15 48	0.9
10	15 25 34	159	−22 48.8	−11.7	60.4	12 10.8	2.48	7 57	3.8	16 14	1.3
11	16 30 41	166	−26 36.4	− 7.1	59.7	13 11.8	2.58	9 27	3.6	16 50	1.8
12	17 37 13	166	−28 25.7	− 2.0	58.9	14 14.2	2.59	10 47	3.0	17 40	2.4
13	18 42 29	159	−28 13.9	+ 2.9	57.9	15 15.4	2.48	11 49	2.2	18 45	2.9
14	19 44 4	148	−26 14.5	+ 6.9	56.9	16 12.9	2.30	12 33	1.5	20 0	3.2
15	20 40 44	135	−22 50.3	+ 9.9	56.1	17 5.5	2.09	13 3	1.1	21 17	3.2
16	21 32 30	124	−18 25.0	+12.0	55.3	17 53.1	1.90	13 24	0.8	22 33	3.1
17	22 20 12	115	−13 18.8	+13.4	54.8	18 36.8	1.75	13 40	0.6	23 45	3.0
18	23 5 0	109	− 7 47.3	+14.2	54.4	19 17.5	1.66	13 53	0.5	—	—
19	23 48 8	107	− 2 2.6	+14.5	54.2	19 56.6	1.61	14 4	0.5	0 55	2.9
20	0 30 50	107	+ 3 45.2	+14.4	54.1	20 35.3	1.62	14 15	0.5	2 3	2.8
21	1 14 15	110	+ 9 26.2	+13.9	54.2	21 14.6	1.67	14 26	0.5	3 10	2.8
22	1 59 30	116	+14 49.2	+12.9	54.4	21 55.8	1.77	14 39	0.6	4 19	2.9
23	2 47 34	124	+19 40.9	+11.3	54.7	22 39.8	1.90	14 54	0.7	5 30	3.0
24	3 39 14	134	+23 45.2	+ 8.9	55.1	23 27.4	2.07	15 14	1.0	6 44	3.1

Tag	0h Welt-Zeit									
	Scheinbare Rektaszension		Scheinbare Deklination		Parallaxe		Halbmesser		Länge	Breite
1931	h m s	m s	° ′	° ′	′ ″	″	′ ″	″	°	°
Nov. 24	2 50 16	50 8	+19 55.5	3 54.4	54 44.7	22.3	14 56.5	6.1	46.080	+3.414
25	3 40 24	53 37	+23 49.9	2 52.1	55 7.0	25.2	15 2.6	6.8	58.351	+4.135
26	4 34 1	56 34	+26 42.0	1 34.2	55 32.2	27.1	15 9.4	7.4	70.824	+4.670
27	5 30 35	58 19	+28 16.2	0 4.4	55 59.3	28.4	15 16.8	7.7	83.501	+4.985
28	6 28 54	58 27	+28 20.6	1 29.9	56 27.7	29.4	15 24.5	8.1	96.382	+5.052
29	7 27 21	57 5	+26 50.7	3 0.1	56 57.1	30.2	15 32.6	8.2	109.458	+4.859
30	8 24 26	54 50	+23 50.6	4 19.4	57 27.3	30.9	15 40.8	8.4	122.725	+4.403
Dez. 1	9 19 16	52 31	+19 31.2	5 23.6	57 58.2	30.9	15 49.2	8.4	136.184	+3.698
2	10 11 47	50 46	+14 7.6	6 10.4	58 29.1	29.8	15 57.6	8.1	149.842	+2.773
3	11 2 33	50 3	+ 7 57.2	6 39.4	58 58.9	27.1	16 5.7	7.4	163.708	+1.672
4	11 52 36	50 32	+ 1 17.8	6 49.0	59 26.0	21.8	16 13.1	6.0	177.787	+0.453
5	12 43 8	52 18	— 5 31.2	6 36.9	59 47.8	13.7	16 19.1	3.7	192.072	—0.810
6	13 35 26	55 11	—12 8.1	6 0.6	60 1.5	3.0	16 22.8	0.8	206.533	—2.034
7	14 30 37	58 45	—18 8.7	4 57.6	60 4.5	9.5	16 23.6	2.6	221.109	—3.133
8	15 29 22	62 1	—23 6.3	3 29.4	59 55.0	22.5	16 21.0	6.1	235.711	—4.027
9	16 31 23	63 53	—26 35.7	1 42.8	59 32.5	34.0	16 14.9	9.3	250.227	—4.652
10	17 35 16	63 22	—28 18.5	0 9.3	58 58.5	42.7	16 5.6	11.6	264.537	—4.975
11	18 38 38	60 30	—28 9.2	1 52.5	58 15.8	47.6	15 54.0	13.0	278.538	—4.989
12	19 39 8	56 12	—26 16.7	3 16.7	57 28.2	48.2	15 41.0	13.1	292.158	—4.715
13	20 35 20	51 34	—23 0.0	4 18.3	56 40.0	45.3	15 27.9	12.3	305.362	—4.193
14	21 26 54	47 31	—18 41.7	4 59.7	55 54.7	39.0	15 15.6	10.7	318.160	—3.471
15	22 14 25	44 27	—13 42.0	5 24.6	55 15.7	30.6	15 4.9	8.3	330.594	—2.602
16	22 58 52	42 30	— 8 17.4	5 36.8	54 45.1	20.8	14 56.6	5.7	342.734	—1.632
17	23 41 22	41 43	— 2 40.6	5 39.0	54 24.3	10.3	14 50.9	2.8	354.663	—0.605
18	0 23 5	42 3	+ 2 58.4	5 32.4	54 14.0	0.2	14 48.1	0.1	6.476	+0.437
19	1 5 8	43 28	+ 8 30.8	5 16.2	54 14.2	9.8	14 48.2	2.6	18.265	+1.458
20	1 48 36	45 52	+13 47.0	4 49.2	54 24.0	18.5	14 50.8	5.1	30.121	+2.420
21	2 34 28	49 6	+18 36.2	4 8.7	54 42.5	25.3	14 55.9	6.9	42.120	+3.284
22	3 23 34	52 48	+22 44.9	3 12.1	55 7.8	30.4	15 2.8	8.3	54.328	+4.012
23	4 16 22	56 19	+25 57.0	1 58.3	55 38.2	33.1	15 11.1	9.0	66.788	+4.564
24	5 12 41	58 48	+27 55.3	0 29.8	56 11.3	33.6	15 20.1	9.1	79.524	+4.901
25	6 11 29	59 37	+28 25.1	1 7.1	56 44.9	32.3	15 29.2	8.8	92.535	+4.993
26	7 11 6	58 38	+27 18.0	2 42.6	57 17.2	29.2	15 38.0	8.0	105.799	+4.820
27	8 9 44	56 20	+24 35.4	4 7.6	57 46.4	25.4	15 46.0	6.9	119.280	+4.377
28	9 6 4	53 37	+20 27.8	5 15.6	58 11.8	21.0	15 52.9	5.7	132.935	+3.678
29	9 59 41	51 17	+15 12.2	6 4.2	58 32.8	16.7	15 58.6	4.6	146.722	+2.757
30	10 50 58	49 51	+ 9 8.0	6 33.0	58 49.5	12.7	16 3.2	3.4	160.609	+1.665
31	11 40 49	49 35	+ 2 35.0	6 42.3	59 2.2	8.8	16 6.6	2.4	174.574	+0.465
32	12 30 24		— 4 7.3		59 11.0		16 9.0		188.608	—0.770

Tag	Obere Kulmination in Greenwich							0h Länge, + 50° Breite			
	AR.	Änderung für 1h westl. Länge	Dekl.	Änderung für 1h westl. Länge	Parallaxe	Zeit des Durchgangs	Änderung für 1h westl. Länge	Aufgang	Änderung für 1h westl. Länge	Untergang	Änderung für 1h westl. Länge
1931	h m s	s	° ′	′	′	h m	m	h m	m	h m	m
Nov. 24	3 39 14	134	+23 45.2	+ 8.9	55.1	23 27.4	2.07	15 14	1.0	6 44	3.1
25	—	—	—	—	—	—	—	15 40	1.3	7 58	3.0
26	4 34 44	143	+26 43.8	+ 5.8	55.5	0 18.8	2.21	16 18	1.9	9 10	2.8
27	5 33 32	150	+28 18.6	+ 2.0	56.0	1 13.5	2.33	17 10	2.5	10 14	2.4
28	6 34 13	152	+28 16.3	— 2.2	56.5	2 10.1	2.37	18 16	3.0	11 6	1.9
29	7 34 52	150	+26 32.3	— 6.4	57.0	3 6.7	2.33	19 32	3.3	11 44	1.4
30	8 33 48	144	+23 12.2	—10.2	57.5	4 1.5	2.23	20 55	3.5	12 12	1.0
Dez. 1	9 30 9	138	+18 29.8	—13.2	58.1	4 53.8	2.13	22 18	3.5	12 33	0.8
2	10 24 1	132	+12 42.9	—15.5	58.6	5 43.6	2.03	23 41	3.4	12 50	0.6
3	11 16 12	129	+ 6 10.6	—17.0	59.1	6 31.7	1.99	—	—	13 4	0.6
4	12 7 54	130	— 0 46.9	—17.6	59.6	7 19.3	2.00	1 3	3.5	13 18	0.6
5	13 0 36	134	— 7 48.2	—17.3	59.9	8 7.9	2.07	2 28	3.6	13 33	0.7
6	13 55 42	142	—14 28.7	—15.9	60.1	8 59.0	2.20	3 54	3.7	13 50	0.8
7	14 54 24	152	—20 20.5	—13.2	60.0	9 53.6	2.36	5 24	3.7	14 12	1.1
8	15 57 6	161	—24 53.4	— 9.3	59.8	10 52.2	2.52	6 54	3.6	14 42	1.5
9	17 2 57	167	—27 40.7	— 4.5	59.3	11 53.9	2.60	8 19	3.2	15 25	2.1
10	18 9 39	165	—28 27.2	+ 0.6	58.6	12 56.5	2.58	9 30	2.6	16 23	2.7
11	19 14 16	157	—27 15.3	+ 5.2	57.8	13 57.0	2.44	10 24	1.9	17 35	3.1
12	20 14 32	144	—24 23.2	+ 8.9	57.0	14 53.2	2.23	11 0	1.3	18 54	3.3
13	21 9 39	132	—20 16.2	+11.5	56.2	15 44.2	2.03	11 26	0.9	20 13	3.2
14	21 59 58	121	—15 18.9	+13.1	55.5	16 30.4	1.84	11 44	0.7	21 28	3.1
15	22 46 33	113	— 9 50.9	+14.1	54.9	17 13.0	1.71	11 59	0.5	22 40	2.9
16	23 30 39	108	— 4 7.0	+14.5	54.5	17 53.0	1.64	12 10	0.5	23 49	2.9
17	0 13 36	107	+ 1 41.5	+14.5	54.3	18 31.9	1.62	12 21	0.5	—	—
18	0 56 37	109	+ 7 25.0	+14.1	54.2	19 10.9	1.65	12 33	0.5	0 57	2.8
19	1 40 56	113	+12 54.0	+13.3	54.4	19 51.2	1.72	12 44	0.5	2 5	2.9
20	2 27 43	121	+17 57.0	+11.9	54.7	20 33.9	1.85	12 59	0.7	3 15	3.0
21	3 17 56	130	+22 19.8	+ 9.9	55.1	21 20.0	2.00	13 16	0.9	4 27	3.1
22	4 12 13	141	+25 44.7	+ 7.1	55.6	22 10.2	2.18	13 40	1.2	5 42	3.1
23	5 10 27	150	+27 52.3	+ 3.4	56.2	23 4.4	2.33	14 14	1.7	6 55	2.9
24	—	—	—	—	—	—	—	15 1	2.3	8 3	2.6
25	6 11 33	155	+28 25.1	— 0.8	56.7	0 1.4	2.40	16 4	2.9	9 0	2.1
26	7 13 33	154	+27 13.2	— 5.2	57.3	0 59.3	2.40	17 19	3.3	9 43	1.6
27	8 14 22	149	+24 18.4	— 9.3	57.8	1 56.0	2.31	18 42	3.5	10 15	1.1
28	9 12 32	142	+19 53.7	—12.6	58.2	2 50.1	2.19	20 6	3.5	10 38	0.9
29	10 7 42	134	+14 18.9	—15.1	58.6	3 41.1	2.07	21 30	3.5	10 56	0.7
30	11 0 23	129	+ 7 56.0	—16.7	58.9	4 29.8	1.99	22 52	3.4	11 11	0.6
31	11 51 43	128	+ 1 6.6	—17.3	59.1	5 17.0	1.96	—	—	11 25	0.6
32	12 43 4	130	— 5 48.3	—17.1	59.2	6 4.3	1.99	0 14	3.4	11 39	0.6

Tag		0ʰ Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931		h m s	m s	° ′ ″	′ ″			h m
Jan.	0	19 31 52.14	3 6.42	−20 48 49.8	13 1.6	9.869 8739	10 7219	12 53.4
	1	19 28 45.72	3 52.40	20 35 48.2	11 32.7	9.859 1520	9 5720	12 46.0
	2	19 24 53.32	4 33.11	20 24 15.5	10 0.2	9.849 5800	8 1649	12 37.8
	3	19 20 20.21	5 6.49	20 14 15.3	8 26.5	9.841 4151	6 5315	12 29.1
	4	19 15 13.72	5 30.71	20 5 48.8	6 53.4	9.834 8836	4 7204	12 19.9
	5	19 9 43.01	5 44.44	19 58 55.4	5 21.8	9.830 1632	2 7983	12 10.3
	6	19 3 58.57	5 47.11	−19 53 33.6	3 52.1	9.827 3649	8415	12 0.7
	7	18 58 11.46	5 38.92	19 49 41.5	2 24.4	9.826 5234	1 0722	11 51.1
	8	18 52 32.54	5 20.80	19 47 17.1	0 58.8	9.827 5956	2 8715	11 41.7
	9	18 47 11.74	4 54.27	19 46 18.3	0 24.5	9.830 4671	4 5002	11 32.6
	10	18 42 17.47	4 21.16	19 46 42.8	1 44.7	9.834 9673	5 9196	11 24.1
	11	18 37 56.31	3 43.47	19 48 27.5	3 0.6	9.840 8869	7 1107	11 16.1
	12	18 34 12.84	3 3.01	−19 51 28.1	4 11.1	9.847 9976	8 0708	11 8.8
	13	18 31 9.83	2 21.43	19 55 39.2	5 14.8	9.856 0684	8 8104	11 2.2
	14	18 28 48.40	1 40.01	20 0 54.0	6 10.5	9.864 8788	9 3488	10 56.2
	15	18 27 8.39	0 59.73	20 7 4.5	6 57.2	9.874 2276	9 7104	10 50.9
	16	18 26 8.66	0 21.30	20 14 1.7	7 34.5	9.883 9380	9 9216	10 46.3
	17	18 25 47.36	0 14.87	20 21 36.2	8 2.2	9.893 8596	10 0079	10 42.3
	18	18 26 2.23	0 48.54	−20 29 38.4	8 20.4	9.903 8675	9 9931	10 38.8
	19	18 26 50.77	1 19.62	20 37 58.8	8 29.1	9.913 8606	9 8982	10 36.0
	20	18 28 10.39	1 48.12	20 46 27.9	8 29.0	9.923 7588	9 7411	10 33.6
	21	18 29 58.51	2 14.16	20 54 56.9	8 20.6	9.933 4999	9 5375	10 31.6
	22	18 32 12.67	2 37.87	21 3 17.5	8 4.7	9.943 0374	9 2997	10 30.1
	23	18 34 50.54	2 59.40	21 11 22.2	7 41.7	9.952 3371	9 0379	10 28.9
	24	18 37 49.94	3 18.94	−21 19 3.9	7 12.5	9.961 3750	8 7604	10 28.1
	25	18 41 8.88	3 36.65	21 26 16.4	6 37.3	9.970 1354	8 4729	10 27.6
	26	18 44 45.53	3 52.70	21 32 53.7	5 57.0	9.978 6083	8 1807	10 27.4
	27	18 48 38.23	4 7.23	21 38 50.7	5 12.2	9.986 7890	7 8886	10 27.5
	28	18 52 45.46	4 20.42	21 44 2.9	4 23.3	9.994 6776	7 5984	10 27.7
	29	18 57 5.88	4 32.39	21 48 26.2	3 30.7	0.002 2760	7 3125	10 28.2
	30	19 1 38.27	4 43.25	−21 51 56.9	2 34.9	0.009 5885	7 0326	10 28.9
	31	19 6 21.52	4 53.13	21 54 31.8	1 36.0	0.016 6211	6 7595	10 29.8
Febr.	1	19 11 14.65	5 2.11	21 56 7.8	0 34.7	0.023 3806	6 4944	10 30.8
	2	19 16 16.76	5 10.29	21 56 42.5	0 28.9	0.029 8750	6 2371	10 31.9
	3	19 21 27.05	5 17.75	21 56 13.6	1 34.5	0.036 1121	5 9881	10 33.2
	4	19 26 44.80	5 24.56	21 54 39.1	2 42.1	0.042 1002	5 7475	10 34.6
	5	19 32 9.36	5 30.76	−21 51 57.0	3 51.0	0.047 8477	5 5153	10 36.1
	6	19 37 40.12	5 36.44	21 48 6.0	5 1.5	0.053 3630	5 2906	10 37.7
	7	19 43 16.56	5 41.64	21 43 4.5	6 13.4	0.058 6536	5 0739	10 39.5
	8	19 48 58.20	5 46.39	21 36 51.1	7 26.3	0.063 7275	4 8648	10 41.2
	9	19 54 44.59	5 50.74	21 29 24.8	8 40.1	0.068 5923	4 6625	10 43.1
	10	20 0 35.33		−21 20 44.7		0.073 2548		10 45.0

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	20 0 35.33	5 54.72	—21 20 44.7	9 54.7	0.073 2548	4 4672	10 45.0
11	20 6 30.05	5 58.39	21 10 50.0	11 10.3	0.077 7220	4 2780	10 47.0
12	20 12 28.44	6 1.76	20 59 39.7	12 26.5	0.082 0000	4 0949	10 49.1
13	20 18 30.20	6 4.84	20 47 13.2	13 43.1	0.086 0949	3 9175	10 51.2
14	20 24 35.04	6 7.70	20 33 30.1	15 0.4	0.090 0124	3 7449	10 53.4
15	20 30 42.74	6 10.34	20 18 29.7	16 18.2	0.093 7573	3 5771	10 55.6
16	20 36 53.08	6 12.79	—20 2 11.5	17 36.1	0.097 3344	3 4137	10 57.8
17	20 43 5.87	6 15.04	19 44 35.4	18 54.6	0.100 7481	3 2539	11 0.1
18	20 49 20.91	6 17.16	19 25 40.8	20 13.3	0.104 0020	3 0973	11 2.5
19	20 55 38.07	6 19.14	19 5 27.5	21 32.2	0.107 0993	2 9439	11 4.8
20	21 1 57.21	6 21.01	18 43 55.3	22 51.3	0.110 0432	2 7926	11 7.2
21	21 8 18.22	6 22.78	18 21 4.0	24 10.6	0.112 8358	2 6435	11 9.6
22	21 14 41.00	6 24.47	—17 56 53.4	25 30.0	0.115 4793	2 4955	11 12.1
23	21 21 5.47	6 26.09	17 31 23.4	26 49.5	0.117 9748	2 3485	11 14.6
24	21 27 31.56	6 27.65	17 4 33.9	28 9.1	0.120 3233	2 2020	11 17.1
25	21 33 59.21	6 29.19	16 36 24.8	29 28.7	0.122 5253	2 0549	11 19.6
26	21 40 28.40	6 30.70	16 6 56.1	30 48.4	0.124 5802	1 9072	11 22.2
27	21 46 59.10	6 32.20	15 36 7.7	32 8.0	0.126 4874	1 7580	11 24.8
28	21 53 31.30	6 33.71	—15 3 59.7	33 27.4	0.128 2454	1 6068	11 27.4
März 1	22 0 5.01	6 35.23	14 30 32.3	34 46.7	0.129 8522	1 4526	11 30.0
2	22 6 40.24	6 36.77	13 55 45.6	36 6.0	0.131 3048	1 2947	11 32.7
3	22 13 17.01	6 38.34	13 19 39.6	37 25.1	0.132 5995	1 1324	11 35.4
4	22 19 55.35	6 39.97	12 42 14.5	38 43.6	0.133 7319	9649	11 38.1
5	22 26 35.32	6 41.63	12 3 30.9	40 2.0	0.134 6968	7911	11 40.8
6	22 33 16.95	6 43.36	—11 23 28.9	41 19.8	0.135 4879	6100	11 43.6
7	22 40 0.31	6 45.15	10 42 9.1	42 36.8	0.136 0979	4205	11 46.4
8	22 46 45.46	6 46.99	9 59 32.3	43 53.2	0.136 5184	2214	11 49.2
9	22 53 32.45	6 48.88	9 15 39.1	45 8.5	0.136 7398	117	11 52.1
10	23 0 21.33	6 50.83	8 30 30.6	46 22.5	0.136 7515	2100	11 55.0
11	23 7 12.16	6 52.82	7 44 8.1	47 35.0	0.136 5415	4450	11 57.9
12	23 14 4.98	6 54.84	— 6 56 33.1	48 45.7	0.136 0965	6945	12 0.9
13	23 20 59.82	6 56.87	6 7 47.4	49 54.1	0.135 4020	9601	12 3.9
14	23 27 56.69	6 58.88	5 17 53.3	50 59.7	0.134 4419	1 2437	12 6.9
15	23 34 55.57	7 0.84	4 26 53.6	52 2.1	0.133 1982	1 5460	12 9.9
16	23 41 56.41	7 2.73	3 34 51.5	53 0.8	0.131 6522	1 8685	12 13.0
17	23 48 59.14	7 4.47	2 41 50.7	53 54.8	0.129 7837	2 2126	12 16.2
18	23 56 3.61	7 6.02	— 1 47 55.9	54 43.6	0.127 5711	2 5797	12 19.3
19	0 3 9.63	7 7.30	— 0 53 12.3	55 26.2	0.124 9914	2 9700	12 22.5
20	0 10 16.93	7 8.25	+ 0 2 13.9	56 1.6	0.122 0214	3 3849	12 25.7
21	0 17 25.18	7 8.75	0 58 15.5	56 28.9	0.118 6365	3 8239	12 28.9
22	0 24 33.93	7 8.71	1 54 44.4	56 47.1	0.114 8126	4 2858	12 32.1
23	0 31 42.64		+ 2 51 31.5		0.110 5268		12 35.3

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
März 23	0 31 42.64	7 8.04	+ 2 51 31.5	56 54.9	0.110 5268	4 7704	12 35.3
24	0 38 50.68	7 6.59	3 48 26.4	56 51.4	0.105 7564	5 2755	12 38.5
25	0 45 57.27	7 4.25	4 45 17.8	56 35.7	0.100 4809	5 7982	12 41.6
26	0 53 1.52	7 0.93	5 41 53.5	56 6.9	0.094 6827	6 3350	12 44.8
27	1 0 2.45	6 56.49	6 38 0.4	55 24.2	0.088 3477	6 8811	12 47.8
28	1 6 58.94	6 50.85	7 33 24.6	54 27.4	0.081 4666	7 4318	12 50.8
29	1 13 49.79	6 43.91	+ 8 27 52.0	53 16.2	0.074 0348	7 9809	12 53.6
30	1 20 33.70	6 35.63	9 21 8.2	51 50.7	0.066 0539	8 5229	12 56.3
31	1 27 9.33	6 25.97	10 12 58.9	50 11.5	0.057 5310	9 0510	12 58.9
April 1	1 33 35.30	6 14.90	11 3 10.4	48 19.1	0.048 4800	9 5595	13 1.3
2	1 39 50.20	6 2.45	11 51 29.5	46 14.6	0.038 9205	10 0424	13 3.5
3	1 45 52.65	5 48.66	12 37 44.1	43 59.1	0.028 8781	10 4943	13 5.5
4	1 51 41.31	5 33.57	+13 21 43.2	41 33.5	0.018 3838	10 9109	13 7.2
5	1 57 14.88	5 17.25	14 3 16.7	38 59.4	0.007 4729	11 2882	13 8.7
6	2 2 32.13	4 59.79	14 42 16.1	36 17.8	9.996 1847	11 6226	13 9.9
7	2 7 31.92	4 41.25	15 18 33.9	33 30.0	9.984 5621	11 9114	13 10.8
8	2 12 13.17	4 21.73	15 52 3.9	30 36.8	9.972 6507	12 1527	13 11.3
9	2 16 34.90	4 1.34	16 22 40.7	27 39.3	9.960 4980	12 3438	13 11.6
10	2 20 36.24	3 40.17	+16 50 20.0	24 38.3	9.948 1542	12 4833	13 11.4
11	2 24 16.41	3 18.28	17 14 58.3	21 34.2	9.935 6709	12 5694	13 11.0
12	2 27 34.69	2 55.83	17 36 32.5	18 27.7	9.923 1015	12 6004	13 10.1
13	2 30 30.52	2 32.91	17 55 0.2	15 19.3	9.910 5011	12 5743	13 8.9
14	2 33 3.43	2 9.65	18 10 19.5	12 9.3	9.897 9268	12 4891	13 7.3
15	2 35 13.08	1 46.19	18 22 28.8	8 58.3	9.885 4377	12 3425	13 5.3
16	2 36 59.27	1 22.69	+18 31 27.1	5 46.6	9.873 0952	12 1325	13 2.9
17	2 38 21.96	0 59.30	18 37 13.7	2 34.9	9.860 9627	11 8574	13 0.2
18	2 39 21.26	0 36.24	18 39 48.6	0 36.0	9.849 1053	11 5146	12 57.0
19	2 39 57.50	0 13.72	18 39 12.6	3 45.2	9.837 5907	11 1027	12 53.5
20	2 40 11.22	0 8.02	18 35 27.4	6 51.5	9.826 4880	10 6203	12 49.6
21	2 40 3.20	0 28.76	18 28 35.9	9 53.4	9.815 8677	10 0679	12 45.3
22	2 39 34.44	0 48.24	+18 18 42.5	12 49.4	9.805 7998	9 4454	12 40.7
23	2 38 46.20	1 6.16	18 5 53.1	15 37.2	9.796 3544	8 7550	12 35.9
24	2 37 40.04	1 22.31	17 50 15.9	18 14.8	9.787 5994	8 0000	12 30.7
25	2 36 17.73	1 36.42	17 32 1.1	20 39.9	9.779 5994	7 1856	12 25.3
26	2 34 41.31	1 48.31	17 11 21.2	22 50.1	9.772 4138	6 3185	12 19.6
27	2 32 53.00	1 57.80	16 48 31.1	24 43.1	9.766 0953	5 4067	12 13.8
28	2 30 55.20	2 4.75	+16 23 48.0	26 16.8	9.760 6886	4 4597	12 7.9
29	2 28 50.45	2 9.09	15 57 31.2	27 29.3	9.756 2289	3 4885	12 1.8
30	2 26 41.36	2 10.81	15 30 1.9	28 19.3	9.752 7404	2 5049	11 55.7
Mai 1	2 24 30.55	2 9.97	15 1 42.6	28 46.1	9.750 2355	1 5207	11 49.7
2	2 22 20.58	2 6.66	14 32 56.5	28 49.4	9.748 7148	5483	11 43.6
3	2 20 13.92		+14 4 7.1		9.748 1665		11 37.6

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Mai 3	2 20 13.92	2 1.01	+14 4 7.1	28 29.4	9.748 1665	4019	11 37.6
4	2 18 12.91	1 53.25	13 35 37.7	27 47.2	9.748 5684	1 3193	11 31.7
5	2 16 19.66	1 43.58	13 7 50.5	26 44.5	9.749 8877	2 1942	11 26.0
6	2 14 36.08	1 32.26	12 41 6.0	25 22.9	9.752 0819	3 0203	11 20.4
7	2 13 3.82	1 19.55	12 15 43.1	23 44.7	9.755 1022	3 7917	11 15.1
8	2 11 44.27	1 5.68	11 51 58.4	21 52.3	9.758 8939	4 5051	11 9.9
9	2 10 38.59	0 50.90	+11 30 6.1	19 48.2	9.763 3990	5 1577	11 5.0
10	2 9 47.69	0 35.46	11 10 17.9	17 34.7	9.768 5567	5 7495	11 0.4
11	2 9 12.23	0 19.56	10 52 43.2	15 14.4	9.774 3062	6 2812	10 56.0
12	2 8 52.67	0 3.37	10 37 28.8	12 49.3	9.780 5874	6 7543	10 51.8
13	2 8 49.30	0 12.95	10 24 39.5	10 21.2	9.787 3417	7 1715	10 48.0
14	2 9 2.25	0 29.28	10 14 18.3	7 52.2	9.794 5132	7 5360	10 44.4
15	2 9 31.53	0 45.49	+10 6 26.1	5 23.6	9.802 0492	7 8511	10 41.0
16	2 10 17.02	1 1.50	10 1 2.5	2 56.5	9.809 9003	8 1212	10 38.0
17	2 11 18.52	1 17.24	9 58 6.0	0 32.3	9.818 0215	8 3497	10 35.2
18	2 12 35.76	1 32.69	9 57 33.7	1 48.7	9.826 3712	8 5407	10 32.7
19	2 14 8.45	1 47.80	9 59 22.4	4 5.2	9.834 9119	8 6976	10 30.4
20	2 15 56.25	2 2.56	10 3 27.6	6 17.2	9.843 6095	8 8241	10 28.3
21	2 17 58.81	2 16.97	+10 9 44.8	8 24.1	9.852 4336	8 9234	10 26.6
22	2 20 15.78	2 31.04	10 18 8.9	10 25.7	9.861 3570	8 9982	10 25.0
23	2 22 46.82	2 44.79	10 28 34.6	12 21.9	9.870 3552	9 0515	10 23.7
24	2 25 31.61	2 58.21	10 40 56.5	14 12.4	9.879 4067	9 0856	10 22.6
25	2 28 29.82	3 11.37	10 55 8.9	15 57.3	9.888 4923	9 1020	10 21.7
26	2 31 41.19	3 24.28	11 11 6.2	17 36.7	9.897 5943	9 1032	10 21.0
27	2 35 5.47	3 36.97	+11 28 42.9	19 10.3	9.906 6975	9 0903	10 20.6
28	2 38 42.44	3 49.47	11 47 53.2	20 38.2	9.915 7878	9 0645	10 20.4
29	2 42 31.91	4 1.85	12 8 31.4	22 0.5	9.924 8523	9 0269	10 20.3
30	2 46 33.76	4 14.10	12 30 31.9	23 17.1	9.933 8792	8 9782	10 20.5
31	2 50 47.86	4 26.29	12 53 49.0	24 28.1	9.942 8574	8 9191	10 20.9
Juni 1	2 55 14.15	4 38.45	13 18 17.1	25 33.3	9.951 7765	8 8496	10 21.5
2	2 59 52.60	4 50.60	+13 43 50.4	26 32.8	9.960 6261	8 7702	10 22.3
3	3 4 43.20	5 2.79	14 10 23.2	27 26.5	9.969 3963	8 6807	10 23.2
4	3 9 45.99	5 15.05	14 37 49.7	28 14.1	9.978 0770	8 5809	10 24.4
5	3 15 1.04	5 27.41	15 6 3.8	28 55.7	9.986 6579	8 4705	10 25.8
6	3 20 28.45	5 39.89	15 34 59.5	29 30.9	9.995 1284	8 3487	10 27.4
7	3 26 8.34	5 52.52	16 4 30.4	29 59.5	0.003 4771	8 2153	10 29.3
8	3 32 0.86	6 5.30	+16 34 29.9	30 21.1	0.011 6924	8 0691	10 31.3
9	3 38 6.16	6 18.26	17 4 51.0	30 35.6	0.019 7615	7 9090	10 33.5
10	3 44 24.42	6 31.40	17 35 26.6	30 42.5	0.027 6705	7 7343	10 36.0
11	3 50 55.82	6 44.71	18 6 9.1	30 41.2	0.035 4048	7 5433	10 38.7
12	3 57 40.53	6 58.17	18 36 50.3	30 31.4	0.042 9481	7 3349	10 41.6
13	4 4 38.70		+19 7 21.7		0.050 2830		10 44.7

Tag	0ʰ Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931	h m s	m s	° ′ ″	′ ″			h m
Juni 13	4 4 38.70	7 11.75	+19 7 21.7	30 12.3	0.050 2830	7 1076	10 44.7
14	4 11 50.45	7 25.40	19 37 34.0	29 43.6	0.057 3906	6 8599	10 48.1
15	4 19 15.85	7 39.03	20 7 17.6	29 4.7	0.064 2505	6 5912	10 51.7
16	4 26 54.88	7 52.60	20 36 22.3	28 14.9	0.070 8417	6 2998	10 55.5
17	4 34 47.48	8 5.96	21 4 37.2	27 13.7	0.077 1415	5 9847	10 59.5
18	4 42 53.44	8 19.02	21 31 50.9	26 1.0	0.083 1262	5 6458	11 3.8
19	4 51 12.46	8 31.62	+21 57 51.9	24 36.1	0.088 7720	5 2830	11 8.3
20	4 59 44.08	8 43.58	22 22 28.0	22 58.9	0.094 0550	4 8966	11 13.0
21	5 8 27.66	8 54.75	22 45 26.9	21 9.9	0.098 9516	4 4878	11 17.9
22	5 17 22.41	9 4.93	23 6 36.8	19 9.2	0.103 4394	4 0583	11 22.9
23	5 26 27.34	9 13.95	23 25 46.0	16 57.3	0.107 4977	3 6108	11 28.2
24	5 35 41.29	9 21.66	23 42 43.3	14 35.4	0.111 1085	3 1488	11 33.6
25	5 45 2.95	9 27.90	+23 57 18.7	12 4.8	0.114 2573	2 6759	11 39.1
26	5 54 30.85	9 32.54	24 9 23.5	9 26.7	0.116 9332	2 1966	11 44.6
27	6 4 3.39	9 35.53	24 18 50.2	6 43.0	0.119 1298	1 7154	11 50.3
28	6 13 38.92	9 36.81	24 25 33.2	3 55.6	0.120 8452	1 2371	11 56.0
29	6 23 15.73	9 36.43	24 29 28.8	1 6.3	0.122 0823	7663	12 1.7
30	6 32 52.16	9 34.39	24 30 35.1	1 43.0	0.122 8486	3066	12 7.3
Juli 1	6 42 26.55	9 30.82	+24 28 52.1	4 30.4	0.123 1552	1377	12 13.0
2	6 51 57.37	9 25.81	24 24 21.7	7 14.4	0.123 0175	5641	12 18.5
3	7 1 23.18	9 19.52	24 17 7.3	9 53.5	0.122 4534	9700	12 24.0
4	7 10 42.70	9 12.10	24 7 13.8	12 26.8	0.121 4834	1 3540	12 29.3
5	7 19 54.80	9 3.72	23 54 47.0	14 52.9	0.120 1294	1 7159	12 34.5
6	7 28 58.52	8 54.52	23 39 54.1	17 11.4	0.118 4135	2 0544	12 39.6
7	7 37 53.04	8 44.67	+23 22 42.7	19 21.9	0.116 3591	2 3705	12 44.5
8	7 46 37.71	8 34.32	23 3 20.8	21 24.0	0.113 9886	2 6647	12 49.2
9	7 55 12.03	8 23.57	22 41 56.8	23 17.6	0.111 3239	2 9380	12 53.7
10	8 3 35.60	8 12.57	22 18 39.2	25 2.8	0.108 3859	3 1916	12 58.1
11	8 11 48.17	8 1.39	21 53 36.4	26 39.7	0.105 1943	3 4270	13 2.3
12	8 19 49.56	7 50.12	21 26 56.7	28 8.5	0.101 7673	3 6458	13 6.3
13	8 27 39.68	7 38.85	+20 58 48.2	29 29.3	0.098 1215	3 8492	13 10.1
14	8 35 18.53	7 27.61	20 29 18.9	30 42.7	0.094 2723	4 0387	13 13.7
15	8 42 46.14	7 16.45	19 58 36.2	31 48.9	0.090 2336	4 2157	13 17.1
16	8 50 2.59	7 5.39	19 26 47.3	32 48.1	0.086 0179	4 3823	13 20.3
17	8 57 7.98	6 54.49	18 53 59.2	33 40.8	0.081 6356	4 5389	13 23.4
18	9 4 2.47	6 43.75	18 20 18.4	34 27.2	0.077 0967	4 6869	13 26.3
19	9 10 46.22	6 33.13	+17 45 51.2	35 7.8	0.072 4098	4 8277	13 29.0
20	9 17 19.35	6 22.71	17 10 43.4	35 42.5	0.067 5821	4 9620	13 31.5
21	9 23 42.06	6 12.45	16 35 0.9	36 11.8	0.062 6201	5 0909	13 33.8
22	9 29 54.51	6 2.35	15 58 49.1	36 36.0	0.057 5292	5 2154	13 36.0
23	9 35 56.86	5 52.39	15 22 13.1	36 55.3	0.052 3138	5 3360	13 38.0
24	9 41 49.25		+14 45 17.8		0.046 9778		13 39.8

Tag	0h Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931	h m s	m s	° ′ ″	′ ″			h m
Juli 24	9 41 49.25	5 42.56	+14 45 17.8	37 9.7	0.046 9778	5 4535	13 39.8
25	9 47 31.81	5 32.86	14 8 8.1	37 19.6	0.041 5243	5 5686	13 41.5
26	9 53 4.67	5 23.25	13 30 48.5	37 25.0	0.035 9557	5 6820	13 43.0
27	9 58 27.92	5 13.74	12 53 23.5	37 26.1	0.030 2737	5 7939	13 44.4
28	10 3 41.66	5 4.27	12 15 57.4	37 22.9	0.024 4798	5 9047	13 45.6
29	10 8 45.93	4 54.83	11 38 34.5	37 15.4	0.018 5751	6 0152	13 46.6
30	10 13 40.76	4 45.39	+11 1 19.1	37 3.9	0.012 5599	6 1253	13 47.5
31	10 18 26.15	4 35.95	10 24 15.2	36 48.1	0.006 4346	6 2351	13 48.2
Aug. 1	10 23 2.10	4 26.43	9 47 27.1	36 28.2	0.000 1995	6 3451	13 48.8
2	10 27 28.53	4 16.83	9 10 58.9	36 4.0	9.993 8544	6 4553	13 49.2
3	10 31 45.36	4 7.11	8 34 54.9	35 35.4	9.987 3991	6 5651	13 49.4
4	10 35 52.47	3 57.23	7 59 19.5	35 2.6	9.980 8340	6 6749	13 49.5
5	10 39 49.70	3 47.15	+ 7 24 16.9	34 25.0	9.974 1591	6 7842	13 49.4
6	10 43 36.85	3 36.82	6 49 51.9	33 42.6	9.967 3749	6 8926	13 49.2
7	10 47 13.67	3 26.22	6 16 9.3	32 55.3	9.960 4823	6 9994	13 48.7
8	10 50 39.89	3 15.30	5 43 14.0	32 2.7	9.953 4829	7 1039	13 48.1
9	10 53 55.19	3 4.02	5 11 11.3	31 4.8	9.946 3790	7 2056	13 47.3
10	10 56 59.21	2 52.30	4 40 6.5	30 0.9	9.939 1734	7 3026	13 46.3
11	10 59 51.51	2 40.12	+ 4 10 5.6	28 50.5	9.931 8708	7 3935	13 45.2
12	11 2 31.63	2 27.43	3 41 15.1	27 33.7	9.924 4773	7 4773	13 43.8
13	11 4 59.06	2 14.18	3 13 41.4	26 9.8	9.917 0000	7 5513	13 42.2
14	11 7 13.24	2 0.32	2 47 31.6	24 38.4	9.909 4487	7 6127	13 40.3
15	11 9 13.56	1 45.81	2 22 53.2	22 58.8	9.901 8360	7 6592	13 38.3
16	11 10 59.37	1 30.63	1 59 54.4	21 10.5	9.894 1768	7 6865	13 35.9
17	11 12 30.00	1 14.72	+ 1 38 43.9	19 13.3	9.886 4903	7 6909	13 33.4
18	11 13 44.72	0 58.09	1 19 30.6	17 6.3	9.878 7994	7 6675	13 30.5
19	11 14 42.81	0 40.75	1 2 24.3	14 49.3	9.871 1319	7 6114	13 27.4
20	11 15 23.56	0 22.69	0 47 35.0	12 21.9	9.863 5205	7 5162	13 24.0
21	11 15 46.25	0 3.98	0 35 13.1	9 43.8	9.856 0043	7 3751	13 20.2
22	11 15 50.23	0 15.32	0 25 29.3	6 55.0	9.848 6292	7 1809	13 16.2
23	11 15 34.91	0 35.08	+ 0 18 34.3	3 55.8	9.841 4483	6 9261	13 11.8
24	11 14 59.83	0 55.13	0 14 38.5	0 46.6	9.834 5222	6 6022	13 7.1
25	11 14 4.70	1 15.26	0 13 51.9	2 31.4	9.827 9200	6 2011	13 2.1
26	11 12 49.44	1 35.22	0 16 23.3	5 56.9	9.821 7189	5 7150	12 56.8
27	11 11 14.22	1 54.66	0 22 20.2	9 27.8	9.816 0039	5 1364	12 51.1
28	11 9 19.56	2 13.18	0 31 48.0	13 1.0	9.810 8675	4 4597	12 45.1
29	11 7 6.38	2 30.37	+ 0 44 49.0	16 33.3	9.806 4078	3 6809	12 38.8
30	11 4 36.01	2 45.70	1 1 22.3	20 0.3	9.802 7269	2 7992	12 32.2
31	11 1 50.31	2 58.67	1 21 22.6	23 17.4	9.799 9277	1 8168	12 25.4
Sept. 1	10 58 51.64	3 8.73	1 44 40.0	26 19.1	9.798 1109	7404	12 18.5
2	10 55 42.91	3 15.40	2 10 59.1	29 0.1	9.797 3705	4187	12 11.4
3	10 52 27.51		+ 2 39 59.2		9.797 7892		12 4.2

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	10 52 27.51	3 18.22	+2 39 59.2	31 14.9	9.797 7892	1 6449	12 4.2
4	10 49 9.29	3 16.85	3 11 14.1	32 58.7	9.799 4341	2 9179	11 57.0
5	10 45 52.44	3 11.02	3 44 12.8	34 7.5	9.802 3520	4 2141	11 49.8
6	10 42 41.42	3 0.64	4 18 20.3	34 38.2	9.806 5661	5 5075	11 42.8
7	10 39 40.78	2 45.78	4 52 58.5	34 29.6	9.812 0736	6 7716	11 36.0
8	10 36 55.00	2 26.64	5 27 28.1	33 41.4	9.818 8452	7 9794	11 29.4
9	10 34 28.36	2 3.57	+6 1 9.5	32 14.7	9.826 8246	9 1066	11 23.3
10	10 32 24.79	1 37.04	6 33 24.2	30 12.0	9.835 9312	10 1323	11 17.5
11	10 30 47.75	1 7.63	7 3 36.2	27 36.9	9.846 0635	11 0393	11 12.2
12	10 29 40.12	0 35.97	7 31 13.1	24 33.3	9.857 1028	11 8158	11 7.4
13	10 29 4.15	0 2.70	7 55 46.4	21 5.9	9.868 9186	12 4536	11 3.1
14	10 29 1.45	0 31.51	8 16 52.3	17 19.0	9.881 3722	12 9494	10 59.4
15	10 29 32.96	1 6.03	+8 34 11.3	13 17.6	9.894 3216	13 3035	10 56.2
16	10 30 38.99	1 40.26	8 47 28.9	9 5.7	9.907 6251	13 5202	10 53.6
17	10 32 19.25	2 13.65	8 56 34.6	4 47.7	9.921 1453	13 6060	10 51.6
18	10 34 32.90	2 45.72	9 1 22.3	0 27.5	9.934 7513	13 5701	10 50.2
19	10 37 18.62	3 16.09	9 1 49.8	3 51.2	9.948 3214	13 4231	10 49.2
20	10 40 34.71	3 44.42	8 57 58.6	8 5.1	9.961 7445	13 1768	10 48.8
21	10 44 19.13	4 10.46	+8 49 53.5	12 11.3	9.974 9213	12 8447	10 48.8
22	10 48 29.59	4 34.06	8 37 42.2	16 7.3	9.987 7660	12 4398	10 49.2
23	10 53 3.65	4 55.09	8 21 34.9	19 50.8	0.000 2058	11 9752	10 50.0
24	10 57 58.74	5 13.57	8 1 44.1	23 19.9	0.012 1810	11 4647	10 51.1
25	11 3 12.31	5 29.55	7 38 24.2	26 33.4	0.023 6457	10 9205	10 52.5
26	11 8 41.86	5 43.10	7 11 50.8	29 30.4	0.034 5662	10 3538	10 54.1
27	11 14 24.96	5 54.40	+6 42 20.4	32 10.4	0.044 9200	9 7757	10 56.0
28	11 20 19.36	6 3.63	6 10 10.0	34 33.4	0.054 6957	9 1949	10 58.1
29	11 26 22.99	6 10.99	5 35 36.6	36 39.6	0.063 8906	8 6188	11 0.2
30	11 32 33.98	6 16.69	4 58 57.0	38 29.7	0.072 5094	8 0539	11 2.5
Okt. 1	11 38 50.67	6 20.94	4 20 27.3	40 4.3	0.080 5633	7 5049	11 4.9
2	11 45 11.61	6 23.94	3 40 23.0	41 24.5	0.088 0682	6 9750	11 7.3
3	11 51 35.55	6 25.90	+2 58 58.5	42 31.3	0.095 0432	6 4672	11 9.8
4	11 58 1.45	6 27.00	2 16 27.2	43 25.8	0.101 5104	5 9829	11 12.3
5	12 4 28.45	6 27.38	1 33 1.4	44 9.0	0.107 4933	5 5224	11 14.8
6	12 10 55.83	6 27.21	0 48 52.4	44 42.0	0.113 0157	5 0860	11 17.3
7	12 17 23.04	6 26.60	+0 4 10.4	45 6.0	0.118 1017	4 6733	11 19.8
8	12 23 49.64	6 25.64	−0 40 55.6	45 21.8	0.122 7750	4 2838	11 22.3
9	12 30 15.28	6 24.44	−1 26 17.4	45 30.3	0.127 0588	3 9161	11 24.8
10	12 36 39.72	6 23.09	2 11 47.7	45 32.3	0.130 9749	3 5691	11 27.3
11	12 43 2.81	6 21.62	2 57 20.0	45 28.4	0.134 5440	3 2417	11 29.7
12	12 49 24.43	6 20.10	3 42 48.4	45 19.5	0.137 7857	2 9323	11 32.1
13	12 55 44.53	6 18.57	4 28 7.9	45 5.9	0.140 7180	2 6403	11 34.5
14	13 2 3.10		−5 13 13.8		0.143 3583		11 36.9

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	13 2 3.10	6 17.08	− 5 13 13.8	44 48.3	0.143 3583	2 3636	11 36.9
15	13 8 20.18	6 15.63	5 58 2.1	44 27.2	0.145 7219	2 1009	11 39.2
16	13 14 35.81	6 14.26	6 42 29.3	44 2.8	0.147 8228	1 8514	11 41.5
17	13 20 50.07	6 12.99	7 26 32.1	43 35.5	0.149 6742	1 6137	11 43.8
18	13 27 3.06	6 11.83	8 10 7.6	43 5.5	0.151 2879	1 3867	11 46.1
19	13 33 14.89	6 10.80	8 53 13.1	42 33.4	0.152 6746	1 1693	11 48.3
20	13 39 25.69	6 9.87	− 9 35 46.5	41 59.0	0.153 8439	9605	11 50.6
21	13 45 35.56	6 9.08	10 17 45.5	41 22.7	0.154 8044	7593	11 52.8
22	13 51 44.64	6 8.43	10 59 8.2	40 44.6	0.155 5637	5649	11 55.0
23	13 57 53.07	6 7.91	11 39 52.8	40 4.8	0.156 1286	3763	11 57.2
24	14 4 0.98	6 7.50	12 19 57.6	39 23.6	0.156 5049	1928	11 59.4
25	14 10 8.48	6 7.25	12 59 21.2	38 40.9	0.156 6977	137	12 1.6
26	14 16 15.73	6 7.10	−13 38 2.1	37 56.6	0.156 7114	1618	12 3.7
27	14 22 22.83	6 7.07	14 15 58.7	37 11.1	0.156 5496	3341	12 5.9
28	14 28 29.90	6 7.18	14 53 9.8	36 24.2	0.156 2155	5042	12 8.1
29	14 34 37.08	6 7.36	15 29 34.0	35 36.2	0.155 7113	6726	12 10.3
30	14 40 44.44	6 7.67	16 5 10.2	34 46.7	0.155 0387	8400	12 12.5
31	14 46 52.11	6 8.05	16 39 56.9	33 56.1	0.154 1987	1 0066	12 14.7
Nov. 1	14 53 0.16	6 8.53	−17 13 53.0	33 4.2	0.153 1921	1 1732	12 16.9
2	14 59 8.69	6 9.07	17 46 57.2	32 11.2	0.152 0189	1 3405	12 19.1
3	15 5 17.76	6 9.68	18 19 8.4	31 16.8	0.150 6784	1 5087	12 21.3
4	15 11 27.44	6 10.33	18 50 25.2	30 21.1	0.149 1697	1 6787	12 23.5
5	15 17 37.77	6 11.02	19 20 46.3	29 24.2	0.147 4910	1 8509	12 25.7
6	15 23 48.79	6 11.72	19 50 10.5	28 26.0	0.145 6401	2 0254	12 28.0
7	15 30 0.51	6 12.43	−20 18 36.5	27 26.4	0.143 6147	2 2036	12 30.3
8	15 36 12.94	6 13.13	20 46 2.9	26 25.4	0.141 4111	2 3855	12 32.5
9	15 42 26.07	6 13.79	21 12 28.3	25 23.0	0.139 0256	2 5712	12 34.8
10	15 48 39.86	6 14.39	21 37 51.3	24 19.4	0.136 4544	2 7617	12 37.1
11	15 54 54.25	6 14.92	22 2 10.7	23 14.2	0.133 6927	2 9583	12 39.4
12	16 1 9.17	6 15.33	22 25 24.9	22 7.5	0.130 7344	3 1603	12 41.7
13	16 7 24.50	6 15.62	−22 47 32.4	20 59.4	0.127 5741	3 3689	12 44.1
14	16 13 40.12	6 15.75	23 8 31.8	19 49.9	0.124 2052	3 5847	12 46.4
15	16 19 55.87	6 15.68	23 28 21.7	18 38.9	0.120 6205	3 8081	12 48.7
16	16 26 11.55	6 15.38	23 47 0.6	17 26.3	0.116 8124	4 0403	12 51.0
17	16 32 26.93	6 14.80	24 4 26.9	16 12.2	0.112 7721	4 2816	12 53.3
18	16 38 41.73	6 13.91	24 20 39.1	14 56.8	0.108 4905	4 5326	12 55.6
19	16 44 55.64	6 12.65	−24 35 35.9	13 39.9	0.103 9579	4 7942	12 57.9
20	16 51 8.29	6 10.96	24 49 15.8	12 21.6	0.099 1637	5 0675	13 0.2
21	16 57 19.25	6 8.76	25 1 37.4	11 1.9	0.094 0962	5 3528	13 2.4
22	17 3 28.01	6 6.01	25 12 39.3	9 40.9	0.088 7434	5 6507	13 4.6
23	17 9 34.02	6 2.60	25 22 20.2	8 18.9	0.083 0927	5 9623	13 6.7
24	17 15 36.62		−25 30 39.1		0.077 1304		13 8.8

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	17 15 36.62	5 58.45	−25 30 39.1	6 55.7	0.077 1304	6 2879	13 8.8
25	17 21 35.07	5 53.45	25 37 34.8	5 31.3	0.070 8425	6 6282	13 10.8
26	17 27 28.52	5 47.49	25 43 6.1	4 6.4	0.064 2143	6 9835	13 12.7
27	17 33 16.01	5 40.42	25 47 12.5	2 41.0	0.057 2308	7 3535	13 14.5
28	17 38 56.43	5 32.10	25 49 53.5	1 15.1	0.049 8773	7 7384	13 16.1
29	17 44 28.53	5 22.38	25 51 8.6	0 10.8	0.042 1389	8 1376	13 17.6
30	17 49 50.91	5 11.05	−25 50 57.8	1 36.5	0.034 0013	8 5496	13 18.9
Dez. 1	17 55 1.96	4 57.91	25 49 21.3	3 1.5	0.025 4517	8 9723	13 20.1
2	17 59 59.87	4 42.72	25 46 19.8	4 25.2	0.016 4794	9 4030	13 21.0
3	18 4 42.59	4 25.26	25 41 54.6	5 47.7	0.007 0764	9 8372	13 21.6
4	18 9 7.85	4 5.25	25 36 6.9	7 8.1	9.997 2392	10 2690	13 21.9
5	18 13 13.10	3 42.42	25 28 58.8	8 26.0	9.986 9702	10 6901	13 21.8
6	18 16 55.52	3 16.50	−25 20 32.8	9 40.7	9.976 2801	11 0900	13 21.3
7	18 20 12.02	2 47.23	25 10 52.1	10 51.9	9.965 1901	11 4552	13 20.4
8	18 22 59.25	2 14.43	25 0 0.2	11 59.1	9.953 7349	11 7681	13 18.9
9	18 25 13.68	1 37.94	24 48 1.1	13 2.1	9.941 9668	12 0076	13 16.9
10	18 26 51.62	0 57.81	24 34 59.0	14 0.4	9.929 9592	12 1486	13 14.3
11	18 27 49.43	0 14.18	24 20 58.6	14 54.1	9.917 8106	12 1615	13 10.9
12	18 28 3.61	0 32.50	−24 6 4.5	15 42.9	9.905 6491	12 0137	13 6.8
13	18 27 31.11	1 21.47	23 50 21.6	16 27.3	9.893 6354	11 6718	13 1.9
14	18 26 9.64	2 11.59	23 33 54.3	17 6.9	9.881 9636	11 1027	12 56.1
15	18 23 58.05	3 1.28	23 16 47.4	17 41.4	9.870 8609	10 2795	12 49.6
16	18 20 56.77	3 48.64	22 59 6.0	18 9.3	9.860 5814	9 1856	12 42.2
17	18 17 8.13	4 31.41	22 40 56.7	18 29.0	9.851 3958	7 8204	12 34.1
18	18 12 36.72	5 7.27	−22 22 27.7	18 37.4	9.843 5754	6 2035	12 25.4
19	18 7 29.45	5 34.06	22 3 50.3	18 30.7	9.837 3719	4 3775	12 16.1
20	18 1 55.39	5 50.11	21 45 19.6	18 4.8	9.832 9944	2 4064	12 6.5
21	17 56 5.28	5 54.44	21 27 14.8	17 16.4	9.830 5880	3701	11 56.8
22	17 50 10.84	5 46.97	21 9 58.4	16 3.4	9.830 2179	1 6447	11 47.0
23	17 44 23.87	5 28.60	20 53 55.0	14 25.8	9.831 8626	3 5554	11 37.5
24	17 38 55.27	5 0.80	−20 39 29.2	12 26.5	9.835 4180	5 2926	11 28.4
25	17 33 54.47	4 25.62	20 27 2.7	10 9.8	9.840 7106	6 8061	11 19.7
26	17 29 28.85	3 45.30	20 16 52.9	7 42.1	9.847 5167	8 0688	11 11.7
27	17 25 43.55	3 1.88	20 9 10.8	5 9.1	9.855 5855	9 0735	11 4.4
28	17 22 41.67	2 17.31	20 4 1.7	2 37.5	9.864 6590	9 8301	10 57.8
29	17 20 24.36	1 33.03	20 1 24.2	0 12.4	9.874 4891	10 3602	10 51.9
30	17 18 51.33	0 50.16	−20 1 11.8	2 2.0	9.884 8493	10 6920	10 46.8
31	17 18 1.17	0 9.51	20 3 13.8	4 3.2	9.895 5413	10 8556	10 42.3
32	17 17 51.66		−20 7 17.0		9.906 3969		10 38.5

Tag		Scheinbare Rektaszension (0h Welt-Zeit)	Diff.	Scheinbare Deklination (0h Welt-Zeit)	Diff.	log Δ (0h Welt-Zeit)	Diff.	Obere Kulmination in Greenwich
1931		h m s	m s	° ′ ″	′ ″			h m
Jan.	0	15 45 13.09	2 25.25	−15 40 23.2	5 4.8	9.631 3192	6 9364	9 9.9
	1	15 47 38.34	2 30.61	15 45 28.0	5 33.0	9.638 2556	6 8868	9 8.4
	2	15 50 8.95	2 35.84	15 51 1.0	5 59.3	9.645 1424	6 8345	9 7.0
	3	15 52 44.79	2 40.90	15 57 0.3	6 23.2	9.651 9769	6 7798	9 5.7
	4	15 55 25.69	2 45.80	16 3 23.5	6 45.1	9.658 7567	6 7227	9 4.4
	5	15 58 11.49	2 50.55	16 10 8.6	7 4.9	9.665 4794	6 6637	9 3.3
	6	16 1 2.04	2 55.18	−16 17 13.5	7 22.8	9.672 1431	6 6031	9 2.2
	7	16 3 57.22	2 59.66	16 24 36.3	7 38.7	9.678 7462	6 5409	9 1.2
	8	16 6 56.88	3 3.99	16 32 15.0	7 52.5	9.685 2871	6 4776	9 0.3
	9	16 10 0.87	3 8.19	16 40 7.5	8 4.4	9.691 7647	6 4130	8 59.4
	10	16 13 9.06	3 12.25	16 48 11.9	8 14.5	9.698 1777	6 3476	8 58.7
	11	16 16 21.31	3 16.20	16 56 26.4	8 22.7	9.704 5253	6 2815	8 58.0
	12	16 19 37.51	3 20.01	−17 4 49.1	8 29.2	9.710 8068	6 2153	8 57.3
	13	16 22 57.52	3 23.70	17 13 18.3	8 33.8	9.717 0221	6 1488	8 56.7
	14	16 26 21.22	3 27.28	17 21 52.1	8 36.9	9.723 1709	6 0823	8 56.2
	15	16 29 48.50	3 30.74	17 30 29.0	8 38.3	9.729 2532	6 0159	8 55.7
	16	16 33 19.24	3 34.09	17 39 7.3	8 38.2	9.735 2691	5 9498	8 55.3
	17	16 36 53.33	3 37.34	17 47 45.5	8 36.4	9.741 2189	5 8842	8 55.0
	18	16 40 30.67	3 40.48	−17 56 21.9	8 33.2	9.747 1031	5 8190	8 54.7
	19	16 44 11.15	3 43.54	18 4 55.1	8 28.7	9.752 9221	5 7544	8 54.4
	20	16 47 54.69	3 46.49	18 13 23.8	8 22.6	9.758 6765	5 6902	8 54.2
	21	16 51 41.18	3 49.36	18 21 46.4	8 15.3	9.764 3667	5 6269	8 54.1
	22	16 55 30.54	3 52.15	18 30 1.7	8 6.7	9.769 9936	5 5643	8 54.0
	23	16 59 22.69	3 54.85	18 38 8.4	7 57.0	9.775 5579	5 5024	8 53.9
	24	17 3 17.54	3 57.48	−18 46 5.4	7 45.9	9.781 0603	5 4414	8 53.9
	25	17 7 15.02	4 0.03	18 53 51.3	7 33.7	9.786 5017	5 3810	8 53.9
	26	17 11 15.05	4 2.49	19 1 25.0	7 20.4	9.791 8827	5 3215	8 54.0
	27	17 15 17.54	4 4.89	19 8 45.4	7 5.9	9.797 2042	5 2628	8 54.1
	28	17 19 22.43	4 7.21	19 15 51.3	6 50.2	9.802 4670	5 2048	8 54.3
	29	17 23 29.64	4 9.47	19 22 41.5	6 33.7	9.807 6718	5 1475	8 54.5
	30	17 27 39.11	4 11.66	−19 29 15.2	6 16.1	9.812 8193	5 0911	8 54.7
	31	17 31 50.77	4 13.79	19 35 31.3	5 57.6	9.817 9104	5 0355	8 55.0
Febr.	1	17 36 4.56	4 15.85	19 41 28.9	5 38.1	9.822 9459	4 9803	8 55.3
	2	17 40 20.41	4 17.83	19 47 7.0	5 17.6	9.827 9262	4 9258	8 55.6
	3	17 44 38.24	4 19.76	19 52 24.6	4 56.4	9.832 8520	4 8719	8 55.9
	4	17 48 58.00	4 21.63	19 57 21.0	4 34.2	9.837 7239	4 8186	8 56.3
	5	17 53 19.63	4 23.41	−20 1 55.2	4 11.2	9.842 5425	4 7657	8 56.8
	6	17 57 43.04	4 25.14	20 6 6.4	3 47.4	9.847 3082	4 7132	8 57.2
	7	18 2 8.18	4 26.79	20 9 53.8	3 22.9	9.852 0214	4 6614	8 57.7
	8	18 6 34.97	4 28.36	20 13 16.7	2 57.6	9.856 6828	4 6100	8 58.2
	9	18 11 3.33	4 29.87	20 16 14.3	2 31.5	9.861 2928	4 5593	8 58.8
	10	18 15 33.20		−20 18 45.8		9.865 8521		8 59.3

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	18 15 33.20	4 31.30	−20 18 45.8	2 4.9	9.865 8521	4 5090	8 59.3
11	18 20 4.50	4 32.65	20 20 50.7	1 37.7	9.870 3611	4 4596	8 59.9
12	18 24 37.15	4 33.93	20 22 28.4	1 9.9	9.874 8207	4 4106	9 0.5
13	18 29 11.08	4 35.13	20 23 38.3	0 41.6	9.879 2313	4 3624	9 1.2
14	18 33 46.21	4 36.27	20 24 19.9	0 12.9	9.883 5937	4 3150	9 1.8
15	18 38 22.48	4 37.32	20 24 32.8	0 16.3	9.887 9087	4 2683	9 2.5
16	18 42 59.80	4 38.32	−20 24 16.5	0 46.0	9.892 1770	4 2222	9 3.2
17	18 47 38.12	4 39.24	20 23 30.5	1 16.1	9.896 3992	4 1770	9 3.9
18	18 52 17.36	4 40.08	20 22 14.4	1 46.5	9.900 5762	4 1324	9 4.6
19	18 56 57.44	4 40.87	20 20 27.9	2 17.1	9.904 7086	4 0887	9 5.3
20	19 1 38.31	4 41.59	20 18 10.8	2 48.0	9.908 7973	4 0457	9 6.1
21	19 6 19.90	4 42.26	20 15 22.8	3 19.2	9.912 8430	4 0034	9 6.8
22	19 11 2.16	4 42.84	−20 12 3.6	3 50.6	9.916 8464	3 9617	9 7.6
23	19 15 45.00	4 43.37	20 8 13.0	4 22.1	9.920 8081	3 9208	9 8.4
24	19 20 28.37	4 43.85	20 3 50.9	4 53.7	9.924 7289	3 8806	9 9.2
25	19 25 12.22	4 44.26	19 58 57.2	5 25.6	9.928 6095	3 8412	9 10.0
26	19 29 56.48	4 44.64	19 53 31.6	5 57.4	9.932 4507	3 8023	9 10.7
27	19 34 41.12	4 44.93	19 47 34.2	6 29.3	9.936 2530	3 7642	9 11.6
28	19 39 26.05	4 45.19	−19 41 4.9	7 1.2	9.940 0172	3 7265	9 12.4
März 1	19 44 11.24	4 45.40	19 34 3.7	7 33.2	9.943 7437	3 6894	9 13.2
2	19 48 56.64	4 45.57	19 26 30.5	8 5.2	9.947 4331	3 6529	9 14.0
3	19 53 42.21	4 45.67	19 18 25.3	8 37.0	9.951 0860	3 6168	9 14.8
4	19 58 27.88	4 45.75	19 9 48.3	9 8.9	9.954 7028	3 5811	9 15.6
5	20 3 13.63	4 45.76	19 0 39.4	9 40.7	9.958 2839	3 5456	9 16.4
6	20 7 59.39	4 45.75	−18 50 58.7	10 12.3	9.961 8295	3 5107	9 17.3
7	20 12 45.14	4 45.68	18 40 46.4	10 43.7	9.965 3402	3 4758	9 18.1
8	20 17 30.82	4 45.56	18 30 2.7	11 15.0	9.968 8160	3 4413	9 18.9
9	20 22 16.38	4 45.41	18 18 47.7	11 46.1	9.972 2573	3 4072	9 19.7
10	20 27 1.79	4 45.22	18 7 1.6	12 16.9	9.975 6645	3 3734	9 20.5
11	20 31 47.01	4 44.97	17 54 44.7	12 47.4	9.979 0379	3 3399	9 21.3
12	20 36 31.98	4 44.70	−17 41 57.3	13 17.7	9.982 3778	3 3066	9 22.2
13	20 41 16.68	4 44.39	17 28 39.6	13 47.6	9.985 6844	3 2738	9 23.0
14	20 46 1.07	4 44.03	17 14 52.0	14 17.1	9.988 9582	3 2415	9 23.7
15	20 50 45.10	4 43.66	17 0 34.9	14 46.2	9.992 1997	3 2096	9 24.5
16	20 55 28.76	4 43.24	16 45 48.7	15 15.1	9.995 4093	3 1781	9 25.3
17	21 0 12.00	4 42.79	16 30 33.6	15 43.4	9.998 5874	3 1469	9 26.1
18	21 4 54.79	4 42.31	−16 14 50.2	16 11.2	0.001 7343	3 1162	9 26.9
19	21 9 37.10	4 41.83	15 58 39.0	16 38.8	0.004 8505	3 0859	9 27.6
20	21 14 18.93	4 41.32	15 42 0.2	17 5.7	0.007 9364	3 0561	9 28.4
21	21 19 0.25	4 40.78	15 24 54.5	17 32.3	0.010 9925	3 0267	9 29.1
22	21 23 41.03	4 40.24	15 7 22.2	17 58.3	0.014 0192	2 9976	9 29.8
23	21 28 21.27		−14 49 23.9		0.017 0168		9 30.6

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
März 23	21 28 21.27	4 39.68	−14 49 23.9	18 23.9	0.017 0168	2 9690	9 30.6
24	21 33 0.95	4 39.10	14 31 0.0	18 48.8	0.019 9858	2 9409	9 31.3
25	21 37 40.05	4 38.53	14 12 11.2	19 13.4	0.022 9267	2 9131	9 32.0
26	21 42 18.58	4 37.94	13 52 57.8	19 37.3	0.025 8398	2 8859	9 32.7
27	21 46 56.52	4 37.35	13 33 20.5	20 0.8	0.028 7257	2 8591	9 33.4
28	21 51 33.87	4 36.75	13 13 19.7	20 23.7	0.031 5848	2 8326	9 34.0
29	21 56 10.62	4 36.17	−12 52 56.0	20 46.0	0.034 4174	2 8064	9 34.7
30	22 0 46.79	4 35.58	12 32 10.0	21 7.9	0.037 2238	2 7806	9 35.4
31	22 5 22.37	4 35.00	12 11 2.1	21 29.1	0.040 0044	2 7551	9 36.0
April 1	22 9 57.37	4 34.43	11 49 33.0	21 49.9	0.042 7595	2 7299	9 36.7
2	22 14 31.80	4 33.87	11 27 43.1	22 10.1	0.045 4894	2 7048	9 37.3
3	22 19 5.67	4 33.32	11 5 33.0	22 29.7	0.048 1942	2 6798	9 37.9
4	22 23 38.99	4 32.77	−10 43 3.3	22 48.7	0.050 8740	2 6550	9 38.5
5	22 28 11.76	4 32.24	10 20 14.6	23 7.2	0.053 5290	2 6304	9 39.1
6	22 32 44.00	4 31.73	9 57 7.4	23 25.0	0.056 1594	2 6059	9 39.7
7	22 37 15.73	4 31.22	9 33 42.4	23 42.3	0.058 7653	2 5814	9 40.3
8	22 41 46.95	4 30.72	9 10 0.1	23 58.9	0.061 3467	2 5571	9 40.9
9	22 46 17.67	4 30.24	8 46 1.2	24 14.9	0.063 9038	2 5330	9 41.4
10	22 50 47.91	4 29.77	− 8 21 46.3	24 30.2	0.066 4368	2 5090	9 42.0
11	22 55 17.68	4 29.32	7 57 16.1	24 44.9	0.068 9458	2 4852	9 42.5
12	22 59 47.00	4 28.89	7 32 31.2	24 59.0	0.071 4310	2 4616	9 43.1
13	23 4 15.89	4 28.48	7 7 32.2	25 12.5	0.073 8926	2 4379	9 43.6
14	23 8 44.37	4 28.08	6 42 19.7	25 25.1	0.076 3305	2 4146	9 44.1
15	23 13 12.45	4 27.70	6 16 54.6	25 37.3	0.078 7451	2 3916	9 44.7
16	23 17 40.15	4 27.35	− 5 51 17.3	25 48.8	0.081 1367	2 3687	9 45.2
17	23 22 7.50	4 27.02	5 25 28.5	25 59.4	0.083 5054	2 3461	9 45.7
18	23 26 34.52	4 26.72	4 59 29.1	26 9.6	0.085 8515	2 3237	9 46.2
19	23 31 1.24	4 26.42	4 33 19.5	26 19.1	0.088 1752	2 3015	9 46.7
20	23 35 27.66	4 26.16	4 7 0.4	26 27.9	0.090 4767	2 2794	9 47.2
21	23 39 53.82	4 25.93	3 40 32.5	26 36.1	0.092 7561	2 2576	9 47.7
22	23 44 19.75	4 25.73	− 3 13 56.4	26 43.5	0.095 0137	2 2362	9 48.2
23	23 48 45.48	4 25.56	2 47 12.9	26 50.4	0.097 2499	2 2149	9 48.7
24	23 53 11.04	4 25.41	2 20 22.5	26 56.5	0.099 4648	2 1940	9 49.2
25	23 57 36.45	4 25.30	1 53 26.0	27 2.1	0.101 6588	2 1732	9 49.6
26	0 2 1.75	4 25.21	1 26 23.9	27 7.1	0.103 8320	2 1527	9 50.1
27	0 6 26.96	4 25.17	0 59 16.8	27 11.2	0.105 9847	2 1324	9 50.6
28	0 10 52.13	4 25.15	− 0 32 5.6	27 15.0	0.108 1171	2 1124	9 51.1
29	0 15 17.28	4 25.17	− 0 4 50.6	27 18.1	0.110 2295	2 0926	9 51.5
30	0 19 42.45	4 25.23	+ 0 22 27.5	27 20.3	0.112 3221	2 0728	9 52.0
Mai 1	0 24 7.68	4 25.32	0 49 47.8	27 22.1	0.114 3949	2 0531	9 52.5
2	0 28 33.00	4 25.45	1 17 9.9	27 23.4	0.116 4480	2 0334	9 53.0
3	0 32 58.45		+ 1 44 33.3		0.118 4814		9 53.5

Venus 1931

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension (h m s)	Diff. (m s)	Scheinbare Deklination (° ′ ″)	Diff. (′ ″)	log Δ	Diff.	Obere Kulmination in Greenwich (h m)
1931 Mai 3	0 32 58.45	4 25.62	+ 1 44 33.3	27 23.8	0.118 4814	2 0138	9 53.5
4	0 37 24.07	4 25.82	2 11 57.1	27 23.6	0.120 4952	1 9943	9 54.0
5	0 41 49.89	4 26.04	2 39 20.7	27 22.9	0.122 4895	1 9747	9 54.4
6	0 46 15.93	4 26.31	3 6 43.6	27 21.4	0.124 4642	1 9552	9 54.9
7	0 50 42.24	4 26.62	3 34 5.0	27 19.2	0.126 4194	1 9357	9 55.4
8	0 55 8.86	4 26.94	4 1 24.2	27 16.4	0.128 3551	1 9161	9 55.9
9	0 59 35.80	4 27.31	+ 4 28 40.6	27 13.0	0.130 2712	1 8967	9 56.4
10	1 4 3.11	4 27.72	4 55 53.6	27 8.7	0.132 1679	1 8773	9 57.0
11	1 8 30.83	4 28.15	5 23 2.3	27 3.9	0.134 0452	1 8580	9 57.5
12	1 12 58.98	4 28.60	5 50 6.2	26 58.3	0.135 9032	1 8387	9 58.0
13	1 17 27.58	4 29.10	6 17 4.5	26 52.1	0.137 7419	1 8194	9 58.5
14	1 21 56.68	4 29.63	6 43 56.6	26 45.1	0.139 5613	1 8003	9 59.1
15	1 26 26.31	4 30.19	+ 7 10 41.7	26 37.6	0.141 3616	1 7812	9 59.6
16	1 30 56.50	4 30.77	7 37 19.3	26 29.2	0.143 1428	1 7622	10 0.2
17	1 35 27.27	4 31.38	8 3 48.5	26 20.2	0.144 9050	1 7433	10 0.8
18	1 39 58.65	4 32.03	8 30 8.7	26 10.4	0.146 6483	1 7245	10 1.4
19	1 44 30.68	4 32.70	8 56 19.1	25 59.9	0.148 3728	1 7058	10 2.0
20	1 49 3.38	4 33.40	9 22 19.0	25 48.9	0.150 0786	1 6873	10 2.6
21	1 53 36.78	4 34.13	+ 9 48 7.9	25 37.0	0.151 7659	1 6690	10 3.2
22	1 58 10.91	4 34.89	10 13 44.9	25 24.5	0.153 4349	1 6509	10 3.8
23	2 2 45.80	4 35.67	10 39 9.4	25 11.1	0.155 0858	1 6329	10 4.5
24	2 7 21.47	4 36.49	11 4 20.5	24 57.4	0.156 7187	1 6151	10 5.1
25	2 11 57.96	4 37.33	11 29 17.9	24 42.8	0.158 3338	1 5974	10 5.8
26	2 16 35.29	4 38.20	11 54 0.7	24 27.5	0.159 9312	1 5796	10 6.5
27	2 21 13.49	4 39.09	+12 18 28.2	24 11.5	0.161 5108	1 5621	10 7.2
28	2 25 52.58	4 40.02	12 42 39.7	23 54.9	0.163 0729	1 5449	10 7.9
29	2 30 32.60	4 40.97	13 6 34.6	23 37.6	0.164 6178	1 5276	10 8.6
30	2 35 13.57	4 41.94	13 30 12.2	23 19.5	0.166 1454	1 5104	10 9.4
31	2 39 55.51	4 42.93	13 53 31.7	23 0.9	0.167 6558	1 4933	10 10.1
Juni 1	2 44 38.44	4 43.95	14 16 32.6	22 41.5	0.169 1491	1 4761	10 10.9
2	2 49 22.39	4 44.98	+14 39 14.1	22 21.3	0.170 6252	1 4591	10 11.7
3	2 54 7.37	4 46.04	15 1 35.4	22 0.7	0.172 0843	1 4417	10 12.5
4	2 58 53.41	4 47.11	15 23 36.1	21 39.1	0.173 5260	1 4245	10 13.4
5	3 3 40.52	4 48.19	15 45 15.2	21 17.0	0.174 9505	1 4072	10 14.2
6	3 8 28.71	4 49.28	16 6 32.2	20 54.0	0.176 3577	1 3899	10 15.1
7	3 13 17.99	4 50.39	16 27 26.2	20 30.5	0.177 7476	1 3727	10 16.0
8	3 18 8.38	4 51.50	+16 47 56.7	20 6.2	0.179 1203	1 3553	10 16.9
9	3 22 59.88	4 52.62	17 8 2.9	19 41.1	0.180 4756	1 3380	10 17.8
10	3 27 52.50	4 53.73	17 27 44.0	19 15.3	0.181 8136	1 3207	10 18.7
11	3 32 46.23	4 54.86	17 46 59.3	18 49.1	0.183 1343	1 3035	10 19.7
12	3 37 41.09	4 55.98	18 5 48.4	18 21.9	0.184 4378	1 2861	10 20.7
13	3 42 37.07		+18 24 10.3		0.185 7239		10 21.7

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Juni 13	3 42 37.07	4 57.10	+18 24 10.3	17 54.2	0.185 7239	1 2689	10 21.7
14	3 47 34.17	4 58.21	18 42 4.5	17 25.8	0.186 9928	1 2516	10 22.7
15	3 52 32.38	4 59.31	18 59 30.3	16 56.6	0.188 2444	1 2343	10 23.7
16	3 57 31.69	5 0.40	19 16 26.9	16 26.9	0.189 4787	1 2172	10 24.8
17	4 2 32.09	5 1.47	19 32 53.8	15 56.5	0.190 6959	1 2000	10 25.9
18	4 7 33.56	5 2.54	19 48 50.3	15 25.4	0.191 8959	1 1831	10 27.0
19	4 12 36.10	5 3.60	+20 4 15.7	14 53.8	0.193 0790	1 1662	10 28.1
20	4 17 39.70	5 4.63	20 19 9.5	14 21.5	0.194 2452	1 1495	10 29.2
21	4 22 44.33	5 5.64	20 33 31.0	13 48.7	0.195 3947	1 1329	10 30.3
22	4 27 49.97	5 6.62	20 47 19.7	13 15.3	0.196 5276	1 1163	10 31.5
23	4 32 56.59	5 7.59	21 0 35.0	12 41.3	0.197 6439	1 0999	10 32.7
24	4 38 4.18	5 8.54	21 13 16.3	12 6.8	0.198 7438	1 0837	10 33.9
25	4 43 12.72	5 9.46	+21 25 23.1	11 31.8	0.199 8275	1 0676	10 35.1
26	4 48 22.18	5 10.34	21 36 54.9	10 56.3	0.200 8951	1 0514	10 36.3
27	4 53 32.52	5 11.20	21 47 51.2	10 20.3	0.201 9465	1 0354	10 37.5
28	4 58 43.72	5 12.03	21 58 11.5	9 43.8	0.202 9819	1 0195	10 38.8
29	5 3 55.75	5 12.82	22 7 55.3	9 6.8	0.204 0014	1 0035	10 40.0
30	5 9 8.57	5 13.59	22 17 2.1	8 29.5	0.205 0049	9876	10 41.3
Juli 1	5 14 22.16	5 14.30	+22 25 31.6	7 51.7	0.205 9925	9716	10 42.6
2	5 19 36.46	5 14.99	22 33 23.3	7 13.6	0.206 9641	9556	10 43.9
3	5 24 51.45	5 15.63	22 40 36.9	6 35.0	0.207 9197	9398	10 45.2
4	5 30 7.08	5 16.23	22 47 11.9	5 56.1	0.208 8595	9237	10 46.5
5	5 35 23.31	5 16.77	22 53 8.0	5 16.9	0.209 7832	9076	10 47.9
6	5 40 40.08	5 17.28	22 58 24.9	4 37.4	0.210 6908	8916	10 49.2
7	5 45 57.36	5 17.73	+23 3 2.3	3 57.6	0.211 5824	8755	10 50.6
8	5 51 15.09	5 18.12	23 6 59.9	3 17.5	0.212 4579	8594	10 51.9
9	5 56 33.21	5 18.47	23 10 17.4	2 37.3	0.213 3173	8434	10 53.3
10	6 1 51.68	5 18.77	23 12 54.7	1 56.9	0.214 1607	8272	10 54.7
11	6 7 10.45	5 19.00	23 14 51.6	1 16.2	0.214 9879	8111	10 56.0
12	6 12 29.45	5 19.18	23 16 7.8	0 35.4	0.215 7990	7950	10 57.4
13	6 17 48.63	5 19.32	+23 16 43.2	0 5.4	0.216 5940	7788	10 58.8
14	6 23 7.95	5 19.39	23 16 37.8	0 46.4	0.217 3728	7626	11 0.2
15	6 28 27.34	5 19.41	23 15 51.4	1 27.3	0.218 1354	7464	11 1.6
16	6 33 46.75	5 19.35	23 14 24.1	2 8.2	0.218 8818	7305	11 2.9
17	6 39 6.10	5 19.25	23 12 15.9	2 49.2	0.219 6123	7147	11 4.3
18	6 44 25.35	5 19.09	23 9 26.7	3 30.1	0.220 3270	6989	11 5.7
19	6 49 44.44	5 18.88	+23 5 56.6	4 10.9	0.221 0259	6830	11 7.1
20	6 55 3.32	5 18.61	23 1 45.7	4 51.6	0.221 7089	6673	11 8.4
21	7 0 21.93	5 18.29	22 56 54.1	5 32.1	0.222 3762	6518	11 9.8
22	7 5 40.22	5 17.92	22 51 22.0	6 12.4	0.223 0280	6364	11 11.2
23	7 10 58.14	5 17.49	22 45 9.6	6 52.6	0.223 6644	6211	11 12.5
24	7 16 15.63		+22 38 17.0		0.224 2855		11 13.9

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Juli 24	7 16 15.63	5 17.03	+22 38 17.0	7 32.5	0.224 2855	6059	11 13.9
25	7 21 32.66	5 16.52	22 30 44.5	8 12.3	0.224 8914	5908	11 15.2
26	7 26 49.18	5 15.96	22 22 32.2	8 51.6	0.225 4822	5759	11 16.5
27	7 32 5.14	5 15.36	22 13 40.6	9 30.7	0.226 0581	5610	11 17.9
28	7 37 20.50	5 14.71	22 4 9.9	10 9.6	0.226 6191	5461	11 19.2
29	7 42 35.21	5 14.04	21 54 0.3	10 48.0	0.227 1652	5312	11 20.5
30	7 47 49.25	5 13.33	+21 43 12.3	11 26.0	0.227 6964	5165	11 21.8
31	7 53 2.58	5 12.58	21 31 46.3	12 3.7	0.228 2129	5017	11 23.0
Aug. 1	7 58 15.16	5 11.79	21 19 42.6	12 41.0	0.228 7146	4868	11 24.3
2	8 3 26.95	5 10.97	21 7 1.6	13 18.0	0.229 2014	4720	11 25.5
3	8 8 37.92	5 10.12	20 53 43.6	13 54.3	0.229 6734	4572	11 26.8
4	8 13 48.04	5 9.26	20 39 49.3	14 30.2	0.230 1306	4424	11 28.0
5	8 18 57.30	5 8.35	+20 25 19.1	15 5.6	0.230 5730	4276	11 29.2
6	8 24 5.65	5 7.43	20 10 13.5	15 40.5	0.231 0006	4128	11 30.4
7	8 29 13.08	5 6.48	19 54 33.0	16 14.9	0.231 4134	3979	11 31.6
8	8 34 19.56	5 5.52	19 38 18.1	16 48.8	0.231 8113	3831	11 32.7
9	8 39 25.08	5 4.53	19 21 29.3	17 22.1	0.232 1944	3682	11 33.9
10	8 44 29.61	5 3.53	19 4 7.2	17 54.7	0.232 5626	3533	11 35.0
11	8 49 33.14	5 2.51	+18 46 12.5	18 26.9	0.232 9159	3385	11 36.1
12	8 54 35.65	5 1.48	18 27 45.6	18 58.4	0.233 2544	3235	11 37.2
13	8 59 37.13	5 0.46	18 8 47.2	19 29.1	0.233 5779	3087	11 38.3
14	9 4 37.59	4 59.40	17 49 18.1	19 59.3	0.233 8866	2938	11 39.3
15	9 9 36.99	4 58.35	17 29 18.8	20 28.9	0.234 1804	2791	11 40.4
16	9 14 35.34	4 57.30	17 8 49.9	20 57.7	0.234 4595	2645	11 41.4
17	9 19 32.64	4 56.24	+16 47 52.2	21 25.9	0.234 7240	2499	11 42.4
18	9 24 28.88	4 55.18	16 26 26.3	21 53.4	0.234 9739	2355	11 43.4
19	9 29 24.06	4 54.14	16 4 32.9	22 20.2	0.235 2094	2212	11 44.3
20	9 34 18.20	4 53.08	15 42 12.7	22 46.3	0.235 4306	2071	11 45.3
21	9 39 11.28	4 52.06	15 19 26.4	23 11.8	0.235 6377	1931	11 46.2
22	9 44 3.34	4 51.04	14 56 14.6	23 36.5	0.235 8308	1793	11 47.2
23	9 48 54.38	4 50.03	+14 32 38.1	24 0.6	0.236 0101	1654	11 48.1
24	9 53 44.41	4 49.04	14 8 37.5	24 23.9	0.236 1755	1518	11 48.9
25	9 58 33.45	4 48.07	13 44 13.6	24 46.6	0.236 3273	1381	11 49.8
26	10 3 21.52	4 47.11	13 19 27.0	25 8.4	0.236 4654	1246	11 50.7
27	10 8 8.63	4 46.18	12 54 18.6	25 29.8	0.236 5900	1112	11 51.5
28	10 12 54.81	4 45.28	12 28 48.8	25 50.3	0.236 7012	977	11 52.3
29	10 17 40.09	4 44.40	+12 2 58.5	26 10.2	0.236 7989	844	11 53.1
30	10 22 24.49	4 43.53	11 36 48.3	26 29.3	0.236 8833	711	11 53.9
31	10 27 8.02	4 42.71	11 10 19.0	26 47.7	0.236 9544	577	11 54.7
Sept. 1	10 31 50.73	4 41.91	10 43 31.3	27 5.5	0.237 0121	444	11 55.5
2	10 36 32.64	4 41.13	10 16 25.8	27 22.4	0.237 0565	311	11 56.2
3	10 41 13.77		+ 9 49 3.4		0.237 0876		11 56.9

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	10 41 13.77	4 40.38	+ 9 49 3.4	27 38.6	0.237 0876	179	11 56.9
4	10 45 54.15	4 39.68	9 21 24.8	27 54.2	0.237 1055	46	11 57.7
5	10 50 33.83	4 39.00	8 53 30.6	28 9.1	0.237 1101	87	11 58.4
6	10 55 12.83	4 38.34	8 25 21.5	28 23.2	0.237 1014	220	11 59.1
7	10 59 51.17	4 37.73	7 56 58.3	28 36.5	0.237 0794	353	11 59.8
8	11 4 28.90	4 37.15	7 28 21.8	28 49.2	0.237 0441	487	12 0.4
9	11 9 6.05	4 36.61	+ 6 59 32.6	29 1.1	0.236 9954	620	12 1.1
10	11 13 42.66	4 36.09	6 30 31.5	29 12.2	0.236 9334	753	12 1.8
11	11 18 18.75	4 35.62	6 1 19.3	29 22.7	0.236 8581	887	12 2.4
12	11 22 54.37	4 35.18	5 31 56.6	29 32.3	0.236 7694	1019	12 3.1
13	11 27 29.55	4 34.77	5 2 24.3	29 41.2	0.236 6675	1151	12 3.7
14	11 32 4.32	4 34.39	4 32 43.1	29 49.4	0.236 5524	1283	12 4.4
15	11 36 38.71	4 34.06	+ 4 2 53.7	29 56.8	0.236 4241	1413	12 5.0
16	11 41 12.77	4 33.77	3 32 56.9	30 3.4	0.236 2828	1544	12 5.6
17	11 45 46.54	4 33.51	3 2 53.5	30 9.4	0.236 1284	1672	12 6.2
18	11 50 20.05	4 33.30	2 32 44.1	30 14.6	0.235 9612	1799	12 6.8
19	11 54 53.35	4 33.12	2 2 29.5	30 19.0	0.235 7813	1925	12 7.5
20	11 59 26.47	4 32.99	1 32 10.5	30 22.7	0.235 5888	2050	12 8.1
21	12 3 59.46	4 32.90	+ 1 1 47.8	30 25.7	0.235 3838	2173	12 8.7
22	12 8 32.36	4 32.85	0 31 22.1	30 28.0	0.235 1665	2294	12 9.3
23	12 13 5.21	4 32.84	+ 0 0 54.1	30 29.5	0.234 9371	2416	12 9.9
24	12 17 38.05	4 32.87	− 0 29 35.4	30 30.4	0.234 6955	2537	12 10.5
25	12 22 10.92	4 32.96	1 0 5.8	30 30.5	0.234 4418	2657	12 11.1
26	12 26 43.88	4 33.09	1 30 36.3	30 29.8	0.234 1761	2776	12 11.7
27	12 31 16.97	4 33.26	− 2 1 6.1	30 28.4	0.233 8985	2895	12 12.3
28	12 35 50.23	4 33.48	2 31 34.5	30 26.4	0.233 6090	3014	12 12.9
29	12 40 23.71	4 33.73	3 2 0.9	30 23.5	0.233 3076	3132	12 13.6
30	12 44 57.44	4 34.03	3 32 24.4	30 20.0	0.232 9944	3249	12 14.2
Okt. 1	12 49 31.47	4 34.37	4 2 44.4	30 15.6	0.232 6695	3367	12 14.8
2	12 54 5.84	4 34.77	4 33 0.0	30 10.6	0.232 3328	3485	12 15.4
3	12 58 40.61	4 35.19	− 5 3 10.6	30 4.9	0.231 9843	3602	12 16.1
4	13 3 15.80	4 35.66	5 33 15.5	29 58.3	0.231 6241	3720	12 16.7
5	13 7 51.46	4 36.17	6 3 13.8	29 51.0	0.231 2521	3838	12 17.4
6	13 12 27.63	4 36.74	6 33 4.8	29 43.0	0.230 8683	3956	12 18.0
7	13 17 4.37	4 37.33	7 2 47.8	29 34.1	0.230 4727	4075	12 18.7
8	13 21 41.70	4 37.97	7 32 21.9	29 24.5	0.230 0652	4194	12 19.4
9	13 26 19.67	4 38.64	− 8 1 46.4	29 14.3	0.229 6458	4314	12 20.1
10	13 30 58.31	4 39.35	8 31 0.7	29 2.9	0.229 2144	4433	12 20.8
11	13 35 37.66	4 40.09	9 0 3.6	28 50.9	0.228 7711	4553	12 21.5
12	13 40 17.75	4 40.87	9 28 54.5	28 38.2	0.228 3158	4673	12 22.2
13	13 44 58.62	4 41.68	9 57 32.7	28 24.6	0.227 8485	4792	12 23.0
14	13 49 40.30		−10 25 57.3		0.227 3693		12 23.8

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	13 49 40.30	4 42.52	−10 25 57.3	28 10.3	0.227 3693	4911	12 23.8
15	13 54 22.82	4 43.39	10 54 7.6	27 55.1	0.226 8782	5029	12 24.5
16	13 59 6.21	4 44.30	11 22 2.7	27 39.1	0.226 3753	5147	12 25.3
17	14 3 50.51	4 45.24	11 49 41.8	27 22.3	0.225 8606	5263	12 26.1
18	14 8 35.75	4 46.20	12 17 4.1	27 4.6	0.225 3343	5377	12 27.0
19	14 13 21.95	4 47.21	12 44 8.7	26 46.3	0.224 7966	5492	12 27.8
20	14 18 9.16	4 48.23	−13 10 55.0	26 27.2	0.224 2474	5606	12 28.6
21	14 22 57.39	4 49.28	13 37 22.2	26 7.3	0.223 6868	5716	12 29.5
22	14 27 46.67	4 50.36	14 3 29.5	25 46.5	0.223 1152	5828	12 30.4
23	14 32 37.03	4 51.47	14 29 16.0	25 24.9	0.222 5324	5939	12 31.3
24	14 37 28.50	4 52.60	14 54 40.9	25 2.7	0.221 9385	6049	12 32.2
25	14 42 21.10	4 53.74	15 19 43.6	24 39.5	0.221 3336	6159	12 33.2
26	14 47 14.84	4 54.91	−15 44 23.1	24 15.6	0.220 7177	6269	12 34.1
27	14 52 9.75	4 56.10	16 8 38.7	23 50.9	0.220 0908	6379	12 35.1
28	14 57 5.85	4 57.30	16 32 29.6	23 25.5	0.219 4529	6489	12 36.1
29	15 2 3.15	4 58.51	16 55 55.1	22 59.2	0.218 8040	6597	12 37.2
30	15 7 1.66	4 59.75	17 18 54.3	22 32.1	0.218 1443	6707	12 38.2
31	15 12 1.41	5 0.99	17 41 26.4	22 4.3	0.217 4736	6816	12 39.3
Nov. 1	15 17 2.40	5 2.24	−18 3 30.7	21 35.7	0.216 7920	6925	12 40.3
2	15 22 4.64	5 3.49	18 25 6.4	21 6.2	0.216 0995	7035	12 41.4
3	15 27 8.13	5 4.74	18 46 12.6	20 36.2	0.215 3960	7146	12 42.6
4	15 32 12.87	5 6.00	19 6 48.8	20 5.2	0.214 6814	7256	12 43.7
5	15 37 18.87	5 7.25	19 26 54.0	19 33.5	0.213 9558	7369	12 44.9
6	15 42 26.12	5 8.49	19 46 27.5	19 1.0	0.213 2189	7482	12 46.1
7	15 47 34.61	5 9.72	−20 5 28.5	18 27.8	0.212 4707	7596	12 47.3
8	15 52 44.33	5 10.95	20 23 56.3	17 53.9	0.211 7111	7711	12 48.5
9	15 57 55.28	5 12.16	20 41 50.2	17 19.2	0.210 9400	7827	12 49.8
10	16 3 7.44	5 13.33	20 59 9.4	16 43.9	0.210 1573	7942	12 51.0
11	16 8 20.77	5 14.49	21 15 53.3	16 7.7	0.209 3631	8059	12 52.3
12	16 13 35.26	5 15.62	21 32 1.0	15 30.9	0.208 5572	8175	12 53.7
13	16 18 50.88	5 16.71	−21 47 31.9	14 53.6	0.207 7397	8291	12 55.0
14	16 24 7.59	5 17.78	22 2 25.5	14 15.4	0.206 9106	8406	12 56.3
15	16 29 25.37	5 18.81	22 16 40.9	13 36.7	0.206 0700	8521	12 57.7
16	16 34 44.18	5 19.82	22 30 17.6	12 57.5	0.205 2179	8637	12 59.1
17	16 40 4.00	5 20.77	22 43 15.1	12 17.6	0.204 3542	8751	13 0.5
18	16 45 24.77	5 21.69	22 55 32.7	11 37.1	0.203 4791	8865	13 1.9
19	16 50 46.46	5 22.56	−23 7 9.8	10 56.2	0.202 5926	8978	13 3.3
20	16 56 9.02	5 23.39	23 18 6.0	10 14.8	0.201 6948	9092	13 4.8
21	17 1 32.41	5 24.17	23 28 20.8	9 32.9	0.200 7856	9205	13 6.2
22	17 6 56.58	5 24.89	23 37 53.7	8 50.6	0.199 8651	9318	13 7.7
23	17 12 21.47	5 25.58	23 46 44.3	8 7.8	0.198 9333	9431	13 9.1
24	17 17 47.05		−23 54 52.1		0.197 9902		13 10.6

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	log Δ	Diff.	Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	17 17 47.05	5 26.19	−23 54 52.1	7 24.7	0.197 9902	9544	13 10.6
25	17 23 13.24	5 26.77	24 2 16.8	6 41.2	0.197 0358	9656	13 12.2
26	17 28 40.01	5 27.27	24 8 58.0	5 57.4	0.196 0702	9768	13 13.7
27	17 34 7.28	5 27.73	24 14 55.4	5 13.3	0.195 0934	9882	13 15.2
28	17 39 35.01	5 28.11	24 20 8.7	4 28.9	0.194 1052	9995	13 16.7
29	17 45 3.12	5 28.45	24 24 37.6	3 44.2	0.193 1057	1 0109	13 18.2
30	17 50 31.57	5 28.71	−24 28 21.8	2 59.4	0.192 0948	1 0223	13 19.8
Dez. 1	17 56 0.28	5 28.92	24 31 21.2	2 14.5	0.191 0725	1 0340	13 21.3
2	18 1 29.20	5 29.06	24 33 35.7	1 29.4	0.190 0385	1 0457	13 22.9
3	18 6 58.26	5 29.13	24 35 5.1	0 44.2	0.188 9928	1 0575	13 24.4
4	18 12 27.39	5 29.13	24 35 49.3	0 1.2	0.187 9353	1 0695	13 25.9
5	18 17 56.52	5 29.07	24 35 48.1	0 46.5	0.186 8658	1 0816	13 27.5
6	18 23 25.59	5 28.94	−24 35 1.6	1 31.8	0.185 7842	1 0939	13 29.0
7	18 28 54.53	5 28.74	24 33 29.8	2 17.0	0.184 6903	1 1063	13 30.6
8	18 34 23.27	5 28.46	24 31 12.8	3 2.2	0.183 5840	1 1189	13 32.1
9	18 39 51.73	5 28.12	24 28 10.6	3 47.2	0.182 4651	1 1316	13 33.6
10	18 45 19.85	5 27.71	24 24 23.4	4 32.2	0.181 3335	1 1444	13 35.2
11	18 50 47.56	5 27.23	24 19 51.2	5 16.9	0.180 1891	1 1572	13 36.7
12	18 56 14.79	5 26.69	−24 14 34.3	6 1.3	0.179 0319	1 1702	13 38.2
13	19 1 41.48	5 26.07	24 8 33.0	6 45.5	0.177 8617	1 1833	13 39.7
14	19 7 7.55	5 25.40	24 1 47.5	7 29.4	0.176 6784	1 1963	13 41.2
15	19 12 32.95	5 24.66	23 54 18.1	8 13.0	0.175 4821	1 2093	13 42.6
16	19 17 57.61	5 23.87	23 46 5.1	8 56.2	0.174 2728	1 2225	13 44.1
17	19 23 21.48	5 23.02	23 37 8.9	9 38.9	0.173 0503	1 2356	13 45.6
18	19 28 44.50	5 22.11	−23 27 30.0	10 21.3	0.171 8147	1 2487	13 47.0
19	19 34 6.61	5 21.15	23 17 8.7	11 3.4	0.170 5660	1 2620	13 48.4
20	19 39 27.76	5 20.15	23 6 5.3	11 44.7	0.169 3040	1 2753	13 49.8
21	19 44 47.91	5 19.09	22 54 20.6	12 25.7	0.168 0287	1 2885	13 51.2
22	19 50 7.00	5 18.00	22 41 54.9	13 6.1	0.166 7402	1 3019	13 52.6
23	19 55 25.00	5 16.87	22 28 48.8	13 45.9	0.165 4383	1 3153	13 53.9
24	20 0 41.87	5 15.70	−22 15 2.9	14 25.2	0.164 1230	1 3287	13 55.2
25	20 5 57.57	5 14.50	22 0 37.7	15 3.9	0.162 7943	1 3422	13 56.5
26	20 11 12.07	5 13.26	21 45 33.8	15 42.0	0.161 4521	1 3557	13 57.8
27	20 16 25.33	5 12.00	21 29 51.8	16 19.4	0.160 0964	1 3694	13 59.1
28	20 21 37.33	5 10.72	21 13 32.4	16 56.3	0.158 7270	1 3831	14 0.3
29	20 26 48.05	5 9.41	20 56 36.1	17 32.5	0.157 3439	1 3969	14 1.6
30	20 31 57.46	5 8.09	−20 39 3.6	18 8.0	0.155 9470	1 4111	14 2.8
31	20 37 5.55	5 6.74	20 20 55.6	18 42.8	0.154 5359	1 4254	14 3.9
32	20 42 12.29		−20 2 12.8		0.153 1105		14 5.1

Tag	0h Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931	h m s	m s	° ′ ″	′ ″			h m
Jan. 0	9 17 37.58	0 39.49	+19 41 16.1	5 32.3	9.863 7860	2 9305	2 42.3
1	9 16 58.09	0 42.82	19 46 48.4	5 44.6	9.860 8555	2 8599	2 37.7
2	9 16 15.27	0 46.13	19 52 33.0	5 56.4	9.857 9956	2 7854	2 33.1
3	9 15 29.14	0 49.42	19 58 29.4	6 7.8	9.855 2102	2 7068	2 28.4
4	9 14 39.72	0 52.68	20 4 37.2	6 18.6	9.852 5034	2 6242	2 23.6
5	9 13 47.04	0 55.91	20 10 55.8	6 28.9	9.849 8792	2 5375	2 18.8
6	9 12 51.13	0 59.09	+20 17 24.7	6 38.5	9.847 3417	2 4466	2 13.9
7	9 11 52.04	1 2.24	20 24 3.2	6 47.6	9.844 8951	2 3514	2 9.0
8	9 10 49.80	1 5.32	20 30 50.8	6 55.8	9.842 5437	2 2520	2 4.1
9	9 9 44.48	1 8.34	20 37 46.6	7 3.4	9.840 2917	2 1481	1 59.1
10	9 8 36.14	1 11.28	20 44 50.0	7 10.2	9.838 1436	2 0399	1 54.0
11	9 7 24.86	1 14.14	20 52 0.2	7 16.0	9.836 1037	1 9275	1 48.9
12	9 6 10.72	1 16.90	+20 59 16.2	7 20.9	9.834 1762	1 8107	1 43.7
13	9 4 53.82	1 19.55	21 6 37.1	7 25.1	9.832 3655	1 6902	1 38.5
14	9 3 34.27	1 22.08	21 14 2.2	7 28.2	9.830 6753	1 5658	1 33.2
15	9 2 12.19	1 24.48	21 21 30.4	7 30.4	9.829 1095	1 4376	1 27.9
16	9 0 47.71	1 26.75	21 29 0.8	7 31.3	9.827 6719	1 3057	1 22.6
17	8 59 20.96	1 28.85	21 36 32.1	7 31.5	9.826 3662	1 1711	1 17.2
18	8 57 52.11	1 30.80	+21 44 3.6	7 30.6	9.825 1951	1 0331	1 11.8
19	8 56 21.31	1 32.58	21 51 34.2	7 28.4	9.824 1620	8924	1 6.4
20	8 54 48.73	1 34.19	21 59 2.6	7 25.5	9.823 2696	7499	1 0.9
21	8 53 14.54	1 35.61	22 6 28.1	7 21.3	9.822 5197	6054	0 55.4
22	8 51 38.93	1 36.86	22 13 49.4	7 16.2	9.821 9143	4592	0 49.9
23	8 50 2.07	1 37.90	22 21 5.6	7 10.1	9.821 4551	3119	0 44.4
24	8 48 24.17	1 38.74	+22 28 15.7	7 3.1	9.821 1432	1635	0 38.8
25	8 46 45.43	1 39.40	22 35 18.8	6 55.1	9.820 9797	$\overline{147}$	0 33.3
26	8 45 6.03	1 39.85	22 42 13.9	6 46.1	9.820 9650	1348	0 27.7
27	8 43 26.18	1 40.10	22 49 0.0	6 36.5	9.821 0998	2838	0 22.1
28	8 41 46.08	1 40.13	22 55 36.5	6 26.0	9.821 3836	4322	0 16.5
29	8 40 5.95	1 39.98	23 2 2.5	6 14.9	9.821 8158	5797	0 10.9
30	8 38 25.97	1 39.63	+23 8 17.4	6 3.1	9.822 3955	7260	{0 5.4 23 59.8}
31	8 36 46.34	1 39.09	23 14 20.5	5 50.6	9.823 1215	8708	23 54.2
Febr. 1	8 35 7.25	1 38.35	23 20 11.1	5 37.7	9.823 9923	1 0139	23 48.6
2	8 33 28.90	1 37.43	23 25 48.8	5 24.3	9.825 0062	1 1551	23 43.1
3	8 31 51.47	1 36.34	23 31 13.1	5 10.5	9.826 1613	1 2940	23 37.6
4	8 30 15.13	1 35.07	23 36 23.6	4 56.3	9.827 4553	1 4306	23 32.1
5	8 28 40.06	1 33.62	+23 41 19.9	4 41.9	9.828 8859	1 5648	23 26.6
6	8 27 6.44	1 32.00	23 46 1.8	4 27.2	9.830 4507	1 6960	23 21.1
7	8 25 34.44	1 30.23	23 50 29.0	4 12.3	9.832 1467	1 8246	23 15.7
8	8 24 4.21	1 28.29	23 54 41.3	3 57.3	9.833 9713	1 9499	23 10.3
9	8 22 35.92	1 26.21	23 58 38.6	3 42.1	9.835 9212	2 0720	23 4.9
10	8 21 9.71		+24 2 20.7		9.837 9932		22 59.6

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Febr. 10	8 21 9.71	1 23.98	+24 2 20.7	3 26.8	9.837 9932	2 1906	22 59.6
11	8 19 45.73	1 21.59	24 5 47.5	3 11.6	9.840 1838	2 3056	22 54.3
12	8 18 24.14	1 19.08	24 8 59.1	2 56.4	9.842 4894	2 4170	22 49.1
13	8 17 5.06	1 16.44	24 11 55.5	2 41.1	9.844 9064	2 5241	22 43.9
14	8 15 48.62	1 13.69	24 14 36.6	2 26.1	9.847 4305	2 6271	22 38.7
15	8 14 34.93	1 10.83	24 17 2.7	2 11.1	9.850 0576	2 7259	22 33.6
16	8 13 24.10	1 7.89	+24 19 13.8	1 56.4	9.852 7835	2 8201	22 28.6
17	8 12 16.21	1 4.83	24 21 10.2	1 41.9	9.855 6036	2 9103	22 23.6
18	8 11 11.38	1 1.71	24 22 52.1	1 27.4	9.858 5139	2 9960	22 18.6
19	8 10 9.67	0 58.53	24 24 19.5	1 13.2	9.861 5099	3 0772	22 13.7
20	8 9 11.14	0 55.27	24 25 32.7	0 59.3	9.864 5871	3 1541	22 8.9
21	8 8 15.87	0 51.97	24 26 32.0	0 45.8	9.867 7412	3 2265	22 4.1
22	8 7 23.90	0 48.64	+24 27 17.8	0 32.5	9.870 9677	3 2943	21 59.3
23	8 6 35.26	0 45.28	24 27 50.3	0 19.4	9.874 2620	3 3581	21 54.6
24	8 5 49.98	0 41.89	24 28 9.7	0 6.8	9.877 6201	3 4174	21 50.0
25	8 5 8.09	0 38.49	24 28 16.5	0 5.6	9.881 0375	3 4727	21 45.4
26	8 4 29.60	0 35.07	24 28 10.9	0 17.7	9.884 5102	3 5238	21 40.9
27	8 3 54.53	0 31.67	24 27 53.2	0 29.4	9.888 0340	3 5709	21 36.4
28	8 3 22.86	0 28.28	+24 27 23.8	0 40.8	9.891 6049	3 6144	21 32.0
März 1	8 2 54.58	0 24.90	24 26 43.0	0 51.9	9.895 2193	3 6543	21 27.7
2	8 2 29.68	0 21.56	24 25 51.1	1 2.8	9.898 8736	3 6907	21 23.4
3	8 2 8.12	0 18.22	24 24 48.3	1 13.2	9.902 5643	3 7236	21 19.1
4	8 1 49.90	0 14.92	24 23 35.1	1 23.3	9.906 2879	3 7535	21 14.9
5	8 1 34.98	0 11.66	24 22 11.8	1 33.2	9.910 0414	3 7804	21 10.8
6	8 1 23.32	0 8.43	+24 20 38.6	1 42.8	9.913 8218	3 8047	21 6.7
7	8 1 14.89	0 5.24	24 18 55.8	1 52.1	9.917 6265	3 8261	21 2.7
8	8 1 9.65	0 2.08	24 17 3.7	2 1.3	9.921 4526	3 8452	20 58.7
9	8 1 7.57	0 1.05	24 15 2.4	2 10.2	9.925 2978	3 8618	20 54.8
10	8 1 8.62	0 4.13	24 12 52.2	2 18.9	9.929 1596	3 8758	20 50.9
11	8 1 12.75	0 7.18	24 10 33.3	2 27.5	9.933 0354	3 8877	20 47.1
12	8 1 19.93	0 10.19	+24 8 5.8	2 35.8	9.936 9231	3 8970	20 43.4
13	8 1 30.12	0 13.15	24 5 30.0	2 44.0	9.940 8201	3 9047	20 39.6
14	8 1 43.27	0 16.08	24 2 46.0	2 52.0	9.944 7248	3 9097	20 36.0
15	8 1 59.35	0 18.96	23 59 54.0	2 59.9	9.948 6345	3 9128	20 32.4
16	8 2 18.31	0 21.78	23 56 54.1	3 7.7	9.952 5473	3 9140	20 28.8
17	8 2 40.09	0 24.57	23 53 46.4	3 15.3	9.956 4613	3 9132	20 25.2
18	8 3 4.66	0 27.30	+23 50 31.1	3 22.9	9.960 3745	3 9107	20 21.7
19	8 3 31.96	0 29.97	23 47 8.2	3 30.3	9.964 2852	3 9063	20 18.3
20	8 4 1.93	0 32.60	23 43 37.9	3 37.7	9.968 1915	3 9004	20 14.9
21	8 4 34.53	0 35.17	23 40 0.2	3 44.9	9.972 0919	3 8927	20 11.6
22	8 5 9.70	0 37.70	23 36 15.3	3 52.0	9.975 9846	3 8837	20 8.3
23	8 5 47.40		+23 32 23.3		9.979 8683		20 5.0

Tag	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
	0h Welt-Zeit						
1931	h m s	m s	° ′ ″	′ ″			h m
März 23	8 5 47.40	0 40.17	+23 32 23.3	3 59.1	9.979 8683	3 8733	20 5.0
24	8 6 27.57	0 42.58	23 28 24.2	4 6.1	9.983 7416	3 8614	20 1.7
25	8 7 10.15	0 44.94	23 24 18.1	4 13.0	9.987 6030	3 8484	19 58.5
26	8 7 55.09	0 47.23	23 20 5.1	4 19.9	9.991 4514	3 8340	19 55.4
27	8 8 42.32	0 49.48	23 15 45.2	4 26.7	9.995 2854	3 8186	19 52.3
28	8 9 31.80	0 51.66	23 11 18.5	4 33.4	9.999 1040	3 8020	19 49.2
29	8 10 23.46	0 53.80	+23 6 45.1	4 40.1	0.002 9060	3 7848	19 46.2
30	8 11 17.26	0 55.85	23 2 5.0	4 46.6	0.006 6908	3 7668	19 43.2
31	8 12 13.11	0 57.87	22 57 18.4	4 53.2	0.010 4576	3 7482	19 40.2
April 1	8 13 10.98	0 59.84	22 52 25.2	4 59.7	0.014 2058	3 7289	19 37.2
2	8 14 10.82	1 1.74	22 47 25.5	5 6.2	0.017 9347	3 7092	19 34.3
3	8 15 12.56	1 3.60	22 42 19.3	5 12.6	0.021 6439	3 6889	19 31.4
4	8 16 16.16	1 5.40	+22 37 6.7	5 19.1	0.025 3328	3 6682	19 28.6
5	8 17 21.56	1 7.17	22 31 47.6	5 25.4	0.029 0010	3 6471	19 25.8
6	8 18 28.73	1 8.90	22 26 22.2	5 31.8	0.032 6481	3 6257	19 23.0
7	8 19 37.63	1 10.58	22 20 50.4	5 38.2	0.036 2738	3 6040	19 20.2
8	8 20 48.21	1 12.22	22 15 12.2	5 44.6	0.039 8778	3 5821	19 17.4
9	8 22 0.43	1 13.83	22 9 27.6	5 51.0	0.043 4599	3 5598	19 14.7
10	8 23 14.26	1 15.39	+22 3 36.6	5 57.4	0.047 0197	3 5372	19 12.0
11	8 24 29.65	1 16.92	21 57 39.2	6 3.8	0.050 5569	3 5142	19 9.4
12	8 25 46.57	1 18.41	21 51 35.4	6 10.3	0.054 0711	3 4909	19 6.8
13	8 27 4.98	1 19.88	21 45 25.1	6 16.7	0.057 5620	3 4672	19 4.2
14	8 28 24.86	1 21.29	21 39 8.4	6 23.2	0.061 0292	3 4434	19 1.6
15	8 29 46.15	1 22.68	21 32 45.2	6 29.7	0.064 4726	3 4192	18 59.0
16	8 31 8.83	1 24.02	+21 26 15.5	6 36.2	0.067 8918	3 3947	18 56.4
17	8 32 32.85	1 25.33	21 19 39.3	6 42.6	0.071 2865	3 3701	18 53.9
18	8 33 58.18	1 26.61	21 12 56.7	6 49.2	0.074 6566	3 3451	18 51.4
19	8 35 24.79	1 27.86	21 6 7.5	6 55.8	0.078 0017	3 3201	18 48.9
20	8 36 52.65	1 29.07	20 59 11.7	7 2.2	0.081 3218	3 2947	18 46.5
21	8 38 21.72	1 30.24	20 52 9.5	7 8.6	0.084 6165	3 2691	18 44.0
22	8 39 51.96	1 31.38	+20 45 0.9	7 15.2	0.087 8856	3 2433	18 41.6
23	8 41 23.34	1 32.48	20 37 45.7	7 21.7	0.091 1289	3 2175	18 39.2
24	8 42 55.82	1 33.56	20 30 24.0	7 28.2	0.094 3464	3 1916	18 36.8
25	8 44 29.38	1 34.61	20 22 55.8	7 34.7	0.097 5380	3 1656	18 34.5
26	8 46 3.99	1 35.60	20 15 21.1	7 41.2	0.100 7036	3 1397	18 32.1
27	8 47 39.59	1 36.58	20 7 39.9	7 47.6	0.103 8433	3 1137	18 29.8
28	8 49 16.17	1 37.53	+19 59 52.3	7 54.0	0.106 9570	3 0879	18 27.5
29	8 50 53.70	1 38.43	19 51 58.3	8 0.4	0.110 0449	3 0621	18 25.2
30	8 52 32.13	1 39.31	19 43 57.9	8 6.7	0.113 1070	3 0364	18 22.9
Mai 1	8 54 11.44	1 40.17	19 35 51.2	8 13.1	0.116 1434	3 0111	18 20.6
2	8 55 51.61	1 41.00	19 27 38.1	8 19.4	0.119 1545	2 9858	18 18.3
3	8 57 32.61		+19 19 18.7		0.122 1403		18 16.1

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Mai 3	8 57 32.61	1 41.81	+19 19 18.7	8 25.8	0.122 1403	2 9608	18 16.1
4	8 59 14.42	1 42.61	19 10 52.9	8 32.0	0.125 1011	2 9360	18 13.9
5	9 0 57.03	1 43.37	19 2 20.9	8 38.4	0.128 0371	2 9113	18 11.7
6	9 2 40.40	1 44.11	18 53 42.5	8 44.8	0.130 9484	2 8868	18 9.5
7	9 4 24.51	1 44.84	18 44 57.7	8 51.1	0.133 8352	2 8624	18 7.3
8	9 6 9.35	1 45.56	18 36 6.6	8 57.4	0.136 6976	2 8381	18 5.1
9	9 7 54.91	1 46.26	+18 27 9.2	9 3.7	0.139 5357	2 8140	18 2.9
10	9 9 41.17	1 46.93	18 18 5.5	9 10.1	0.142 3497	2 7898	18 0.7
11	9 11 28.10	1 47.59	18 8 55.4	9 16.4	0.145 1395	2 7658	17 58.6
12	9 13 15.69	1 48.23	17 59 39.0	9 22.8	0.147 9053	2 7419	17 56.5
13	9 15 3.92	1 48.86	17 50 16.2	9 29.1	0.150 6472	2 7180	17 54.3
14	9 16 52.78	1 49.48	17 40 47.1	9 35.4	0.153 3652	2 6941	17 52.2
15	9 18 42.26	1 50.08	+17 31 11.7	9 41.8	0.156 0593	2 6703	17 50.1
16	9 20 32.34	1 50.66	17 21 29.9	9 48.0	0.158 7296	2 6466	17 48.0
17	9 22 23.00	1 51.23	17 11 41.9	9 54.2	0.161 3762	2 6229	17 45.9
18	9 24 14.23	1 51.77	17 1 47.7	10 0.5	0.163 9991	2 5993	17 43.8
19	9 26 6.00	1 52.31	16 51 47.2	10 6.7	0.166 5984	2 5755	17 41.7
20	9 27 58.31	1 52.83	16 41 40.5	10 12.9	0.169 1739	2 5519	17 39.7
21	9 29 51.14	1 53.33	+16 31 27.6	10 19.0	0.171 7258	2 5285	17 37.6
22	9 31 44.47	1 53.81	16 21 8.6	10 25.1	0.174 2543	2 5050	17 35.6
23	9 33 38.28	1 54.28	16 10 43.5	10 31.2	0.176 7593	2 4818	17 33.6
24	9 35 32.56	1 54.73	16 0 12.3	10 37.3	0.179 2411	2 4586	17 31.5
25	9 37 27.29	1 55.18	15 49 35.0	10 43.2	0.181 6997	2 4356	17 29.5
26	9 39 22.47	1 55.61	15 38 51.8	10 49.1	0.184 1353	2 4127	17 27.5
27	9 41 18.08	1 56.01	+15 28 2.7	10 54.9	0.186 5480	2 3902	17 25.5
28	9 43 14.09	1 56.41	15 17 7.8	11 0.8	0.188 9382	2 3678	17 23.5
29	9 45 10.50	1 56.79	15 6 7.0	11 6.5	0.191 3060	2 3456	17 21.5
30	9 47 7.29	1 57.17	14 55 0.5	11 12.2	0.193 6516	2 3238	17 19.5
31	9 49 4.46	1 57.53	14 43 48.3	11 17.8	0.195 9754	2 3021	17 17.5
Juni 1	9 51 1.99	1 57.89	14 32 30.5	11 23.5	0.198 2775	2 2808	17 15.5
2	9 52 59.88	1 58.24	+14 21 7.0	11 29.2	0.200 5583	2 2597	17 13.6
3	9 54 58.12	1 58.58	14 9 37.8	11 34.7	0.202 8180	2 2387	17 11.6
4	9 56 56.70	1 58.92	13 58 3.1	11 40.2	0.205 0567	2 2179	17 9.6
5	9 58 55.62	1 59.26	13 46 22.9	11 45.8	0.207 2746	2 1974	17 7.7
6	10 0 54.88	1 59.58	13 34 37.1	11 51.2	0.209 4720	2 1769	17 5.8
7	10 2 54.46	1 59.90	13 22 45.9	11 56.7	0.211 6489	2 1567	17 3.8
8	10 4 54.36	2 0.22	+13 10 49.2	12 2.1	0.213 8056	2 1365	17 1.9
9	10 6 54.58	2 0.53	12 58 47.1	12 7.5	0.215 9421	2 1164	16 59.9
10	10 8 55.11	2 0.84	12 46 39.6	12 12.8	0.218 0585	2 0966	16 58.0
11	10 10 55.95	2 1.14	12 34 26.8	12 18.1	0.220 1551	2 0767	16 56.1
12	10 12 57.09	2 1.44	12 22 8.7	12 23.3	0.222 2318	2 0569	16 54.2
13	10 14 58.53		+12 9 45.4		0.224 2887		16 52.2

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Juni 13	10 14 58.53	2 1.74	+12 9 45.4	12 28.6	0.224 2887	2 0373	16 52.2
14	10 17 0.27	2 2.03	11 57 16.8	12 33.9	0.226 3260	2 0175	16 50.3
15	10 19 2.30	2 2.31	11 44 42.9	12 38.9	0.228 3435	1 9980	16 48.4
16	10 21 4.61	2 2.60	11 32 4.0	12 44.0	0.230 3415	1 9785	16 46.5
17	10 23 7.21	2 2.87	11 19 20.0	12 49.0	0.232 3200	1 9591	16 44.7
18	10 25 10.08	2 3.13	11 6 31.0	12 54.0	0.234 2791	1 9397	16 42.8
19	10 27 13.21	2 3.40	+10 53 37.0	12 58.9	0.236 2188	1 9204	16 40.9
20	10 29 16.61	2 3.66	10 40 38.1	13 3.7	0.238 1392	1 9012	16 39.0
21	10 31 20.27	2 3.90	10 27 34.4	13 8.4	0.240 0404	1 8822	16 37.1
22	10 33 24.17	2 4.15	10 14 26.0	13 13.1	0.241 9226	1 8633	16 35.3
23	10 35 28.32	2 4.39	10 1 12.9	13 17.6	0.243 7859	1 8445	16 33.4
24	10 37 32.71	2 4.63	9 47 55.3	13 22.1	0.245 6304	1 8259	16 31.5
25	10 39 37.34	2 4.86	+ 9 34 33.2	13 26.6	0.247 4563	1 8076	16 29.6
26	10 41 42.20	2 5.08	9 21 6.6	13 30.9	0.249 2639	1 7895	16 27.8
27	10 43 47.28	2 5.31	9 7 35.7	13 35.1	0.251 0534	1 7715	16 25.9
28	10 45 52.59	2 5.53	8 54 0.6	13 39.4	0.252 8249	1 7538	16 24.1
29	10 47 58.12	2 5.76	8 40 21.2	13 43.6	0.254 5787	1 7363	16 22.3
30	10 50 3.88	2 5.98	8 26 37.6	13 47.6	0.256 3150	1 7190	16 20.4
Juli 1	10 52 9.86	2 6.20	+ 8 12 50.0	13 51.7	0.258 0340	1 7019	16 18.6
2	10 54 16.06	2 6.43	7 58 58.3	13 55.7	0.259 7359	1 6850	16 16.8
3	10 56 22.49	2 6.66	7 45 2.6	13 59.6	0.261 4209	1 6682	16 14.9
4	10 58 29.15	2 6.88	7 31 3.0	14 3.4	0.263 0891	1 6516	16 13.1
5	11 0 36.03	2 7.11	7 16 59.6	14 7.3	0.264 7407	1 6351	16 11.3
6	11 2 43.14	2 7.34	7 2 52.3	14 11.1	0.266 3758	1 6187	16 9.4
7	11 4 50.48	2 7.58	+ 6 48 41.2	14 14.8	0.267 9945	1 6024	16 7.6
8	11 6 58.06	2 7.82	6 34 26.4	14 18.4	0.269 5969	1 5862	16 5.8
9	11 9 5.88	2 8.05	6 20 8.0	14 22.1	0.271 1831	1 5700	16 4.0
10	11 11 13.93	2 8.28	6 5 45.9	14 25.6	0.272 7531	1 5540	16 2.2
11	11 13 22.21	2 8.52	5 51 20.3	14 29.1	0.274 3071	1 5380	16 0.4
12	11 15 30.73	2 8.77	5 36 51.2	14 32.4	0.275 8451	1 5222	15 58.6
13	11 17 39.50	2 9.01	+ 5 22 18.8	14 35.8	0.277 3673	1 5063	15 56.8
14	11 19 48.51	2 9.26	5 7 43.0	14 39.1	0.278 8736	1 4904	15 55.0
15	11 21 57.77	2 9.50	4 53 3.9	14 42.3	0.280 3640	1 4747	15 53.2
16	11 24 7.27	2 9.75	4 38 21.6	14 45.4	0.281 8387	1 4589	15 51.5
17	11 26 17.02	2 10.00	4 23 36.2	14 48.4	0.283 2976	1 4431	15 49.7
18	11 28 27.02	2 10.24	4 8 47.8	14 51.3	0.284 7407	1 4275	15 47.9
19	11 30 37.26	2 10.49	+ 3 53 56.5	14 54.1	0.286 1682	1 4120	15 46.2
20	11 32 47.75	2 10.74	3 39 2.4	14 56.9	0.287 5802	1 3966	15 44.4
21	11 34 58.49	2 10.98	3 24 5.5	14 59.4	0.288 9768	1 3812	15 42.6
22	11 37 9.47	2 11.23	3 9 6.1	15 2.0	0.290 3580	1 3660	15 40.9
23	11 39 20.70	2 11.47	2 54 4.1	15 4.5	0.291 7240	1 3509	15 39.1
24	11 41 32.17		+ 2 38 59.6		0.293 0749		15 37.4

Tag	Scheinbare Rektaszension (0h Welt-Zeit)	Diff.	Scheinbare Deklination (0h Welt-Zeit)	Diff.	log Δ (0h Welt-Zeit)	Diff.	Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Juli 24	11 41 32.17	2 11.72	+2 38 59.6	15 6.8	0.293 0749	1 3363	15 37.4
25	11 43 43.89	2 11.98	2 23 52.8	15 9.1	0.294 4112	1 3216	15 35.6
26	11 45 55.87	2 12.23	2 8 43.7	15 11.1	0.295 7328	1 3071	15 33.9
27	11 48 8.10	2 12.49	1 53 32.6	15 13.3	0.297 0399	1 2928	15 32.2
28	11 50 20.59	2 12.75	1 38 19.3	15 15.3	0.298 3327	1 2786	15 30.4
29	11 52 33.34	2 13.01	1 23 4.0	15 17.2	0.299 6113	1 2646	15 28.7
30	11 54 46.35	2 13.29	+1 7 46.8	15 19.1	0.300 8759	1 2507	15 27.0
31	11 56 59.64	2 13.57	0 52 27.7	15 20.8	0.302 1266	1 2371	15 25.3
Aug. 1	11 59 13.21	2 13.84	0 37 6.9	15 22.5	0.303 3637	1 2236	15 23.6
2	12 1 27.05	2 14.12	0 21 44.4	15 24.2	0.304 5873	1 2101	15 21.9
3	12 3 41.17	2 14.41	+0 6 20.2	15 25.7	0.305 7974	1 1968	15 20.2
4	12 5 55.58	2 14.72	−0 9 5.5	15 27.1	0.306 9942	1 1835	15 18.5
5	12 8 10.30	2 15.02	−0 24 32.6	15 28.5	0.308 1777	1 1703	15 16.8
6	12 10 25.32	2 15.34	0 40 1.1	15 29.9	0.309 3480	1 1572	15 15.1
7	12 12 40.66	2 15.64	0 55 31.0	15 31.1	0.310 5052	1 1441	15 13.4
8	12 14 56.30	2 15.96	1 11 2.1	15 32.2	0.311 6493	1 1311	15 11.7
9	12 17 12.26	2 16.30	1 26 34.3	15 33.3	0.312 7804	1 1182	15 10.0
10	12 19 28.56	2 16.62	1 42 7.6	15 34.2	0.313 8986	1 1052	15 8.4
11	12 21 45.18	2 16.95	−1 57 41.8	15 35.1	0.315 0038	1 0923	15 6.7
12	12 24 2.13	2 17.30	2 13 16.9	15 35.9	0.316 0961	1 0794	15 5.1
13	12 26 19.43	2 17.65	2 28 52.8	15 36.6	0.317 1755	1 0666	15 3.4
14	12 28 37.08	2 17.99	2 44 29.4	15 37.1	0.318 2421	1 0536	15 1.8
15	12 30 55.07	2 18.34	3 0 6.5	15 37.6	0.319 2957	1 0409	15 0.1
16	12 33 13.41	2 18.70	3 15 44.1	15 37.8	0.320 3366	1 0280	14 58.5
17	12 35 32.11	2 19.06	−3 31 21.9	15 38.0	0.321 3646	1 0153	14 56.9
18	12 37 51.17	2 19.42	3 46 59.9	15 38.1	0.322 3799	1 0028	14 55.3
19	12 40 10.59	2 19.77	4 2 38.0	15 38.1	0.323 3827	9902	14 53.7
20	12 42 30.36	2 20.14	4 18 16.1	15 37.9	0.324 3729	9779	14 52.1
21	12 44 50.50	2 20.52	4 33 54.0	15 37.5	0.325 3508	9657	14 50.5
22	12 47 11.02	2 20.89	4 49 31.5	15 37.1	0.326 3165	9536	14 48.9
23	12 49 31.91	2 21.28	−5 5 8.6	15 36.7	0.327 2701	9418	14 47.3
24	12 51 53.19	2 21.66	5 20 45.3	15 36.0	0.328 2119	9300	14 45.7
25	12 54 14.85	2 22.04	5 36 21.3	15 35.3	0.329 1419	9184	14 44.1
26	12 56 36.89	2 22.45	5 51 56.6	15 34.5	0.330 0603	9069	14 42.5
27	12 58 59.34	2 22.86	6 7 31.1	15 33.5	0.330 9672	8956	14 41.0
28	13 1 22.20	2 23.27	6 23 4.6	15 32.5	0.331 8628	8843	14 39.4
29	13 3 45.47	2 23.69	−6 38 37.1	15 31.3	0.332 7471	8730	14 37.9
30	13 6 9.16	2 24.11	6 54 8.4	15 30.0	0.333 6201	8621	14 36.3
31	13 8 33.27	2 24.55	7 9 38.4	15 28.6	0.334 4822	8511	14 34.8
Sept. 1	13 10 57.82	2 24.98	7 25 7.0	15 27.2	0.335 3333	8403	14 33.3
2	13 13 22.80	2 25.43	7 40 34.2	15 25.6	0.336 1736	8295	14 31.7
3	13 15 48.23		−7 55 59.8		0.337 0031		14 30.2

Mars 1931

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Sept. 3	13 15 48.23	2 25.89	— 7 55 59.8	15 23.8	0.337 0031	8189	14 30.2
4	13 18 14.12	2 26.36	8 11 23.6	15 22.1	0.337 8220	8081	14 28.7
5	13 20 40.48	2 26.82	8 26 45.7	15 20.2	0.338 6301	7974	14 27.2
6	13 23 7.30	2 27.30	8 42 5.9	15 18.1	0.339 4275	7870	14 25.7
7	13 25 34.60	2 27.79	8 57 24.0	15 15.9	0.340 2145	7764	14 24.3
8	13 28 2.39	2 28.28	9 12 39.9	15 13.7	0.340 9909	7659	14 22.8
9	13 30 30.67	2 28.77	— 9 27 53.6	15 11.2	0.341 7568	7554	14 21.3
10	13 32 59.44	2 29.27	9 43 4.8	15 8.6	0.342 5122	7448	14 19.9
11	13 35 28.71	2 29.79	9 58 13.4	15 6.0	0.343 2570	7342	14 18.4
12	13 37 58.50	2 30.29	10 13 19.4	15 3.1	0.343 9912	7238	14 17.0
13	13 40 28.79	2 30.81	10 28 22.5	15 0.0	0.344 7150	7132	14 15.6
14	13 42 59.60	2 31.33	10 43 22.5	14 56.9	0.345 4282	7027	14 14.1
15	13 45 30.93	2 31.85	—10 58 19.4	14 53.7	0.346 1309	6923	14 12.7
16	13 48 2.78	2 32.37	11 13 13.1	14 50.3	0.346 8232	6820	14 11.3
17	13 50 35.15	2 32.91	11 28 3.4	14 46.5	0.347 5052	6719	14 9.9
18	13 53 8.06	2 33.45	11 42 49.9	14 42.8	0.348 1771	6618	14 8.5
19	13 55 41.51	2 33.98	11 57 32.7	14 38.9	0.348 8389	6519	14 7.1
20	13 58 15.49	2 34.52	12 12 11.6	14 34.8	0.349 4908	6422	14 5.8
21	14 0 50.01	2 35.07	—12 26 46.4	14 30.5	0.350 1330	6324	14 4.4
22	14 3 25.08	2 35.62	12 41 16.9	14 26.3	0.350 7654	6229	14 3.0
23	14 6 0.70	2 36.19	12 55 43.2	14 21.8	0.351 3883	6135	14 1.7
24	14 8 36.89	2 36.75	13 10 5.0	14 17.0	0.352 0018	6042	14 0.4
25	14 11 13.64	2 37.32	13 24 22.0	14 12.3	0.352 6060	5951	13 59.1
26	14 13 50.96	2 37.91	13 38 34.3	14 7.4	0.353 2011	5859	13 57.8
27	14 16 28.87	2 38.48	—13 52 41.7	14 2.3	0.353 7870	5770	13 56.5
28	14 19 7.35	2 39.07	14 6 44.0	13 57.1	0.354 3640	5680	13 55.2
29	14 21 46.42	2 39.67	14 20 41.1	13 51.8	0.354 9320	5592	13 53.9
30	14 24 26.09	2 40.27	14 34 32.9	13 46.2	0.355 4912	5504	13 52.6
Okt. 1	14 27 6.36	2 40.88	14 48 19.1	13 40.6	0.356 0416	5417	13 51.3
2	14 29 47.24	2 41.50	15 1 59.7	13 34.8	0.356 5833	5331	13 50.1
3	14 32 28.74	2 42.11	—15 15 34.5	13 28.7	0.357 1164	5245	13 48.8
4	14 35 10.85	2 42.74	15 29 3.2	13 22.7	0.357 6409	5160	13 47.6
5	14 37 53.59	2 43.37	15 42 25.9	13 16.4	0.358 1569	5075	13 46.4
6	14 40 36.96	2 44.00	15 55 42.3	13 10.0	0.358 6644	4990	13 45.2
7	14 43 20.96	2 44.65	16 8 52.3	13 3.3	0.359 1634	4905	13 44.0
8	14 46 5.61	2 45.28	16 21 55.6	12 56.6	0.359 6539	4821	13 42.8
9	14 48 50.89	2 45.93	—16 34 52.2	12 49.6	0.360 1360	4736	13 41.6
10	14 51 36.82	2 46.58	16 47 41.8	12 42.6	0.360 6096	4649	13 40.4
11	14 54 23.40	2 47.22	17 0 24.4	12 35.3	0.361 0745	4565	13 39.2
12	14 57 10.62	2 47.88	17 12 59.7	12 27.7	0.361 5310	4480	13 38.1
13	14 59 58.50	2 48.52	17 25 27.4	12 20.1	0.361 9790	4396	13 37.0
14	15 2 47.02		—17 37 47.5		0.362 4186		13 35.8

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Okt. 14	15 2 47.02	2 49.18	—17 37 47.5	12 12.2	0.362 4186	4313	13 35.8
15	15 5 36.20	2 49.82	17 49 59.7	12 4.2	0.362 8499	4231	13 34.7
16	15 8 26.02	2 50.47	18 2 3.9	11 55.9	0.363 2730	4148	13 33.6
17	15 11 16.49	2 51.12	18 13 59.8	11 47.6	0.363 6878	4068	13 32.5
18	15 14 7.61	2 51.77	18 25 47.4	11 39.0	0.364 0946	3989	13 31.4
19	15 16 59.38	2 52.42	18 37 26.4	11 30.3	0.364 4935	3911	13 30.4
20	15 19 51.80	2 53.06	—18 48 56.7	11 21.3	0.364 8846	3833	13 29.3
21	15 22 44.86	2 53.72	19 0 18.0	11 12.3	0.365 2679	3758	13 28.3
22	15 25 38.58	2 54.37	19 11 30.3	11 3.1	0.365 6437	3684	13 27.2
23	15 28 32.95	2 55.02	19 22 33.4	10 53.6	0.366 0121	3610	13 26.2
24	15 31 27.97	2 55.66	19 33 27.0	10 44.0	0.366 3731	3538	13 25.2
25	15 34 23.63	2 56.32	19 44 11.0	10 34.2	0.366 7269	3466	13 24.2
26	15 37 19.95	2 56.97	—19 54 45.2	10 24.3	0.367 0735	3396	13 23.2
27	15 40 16.92	2 57.62	20 5 9.5	10 14.2	0.367 4131	3327	13 22.2
28	15 43 14.54	2 58.27	20 15 23.7	10 4.0	0.367 7458	3259	13 21.2
29	15 46 12.81	2 58.92	20 25 27.7	9 53.5	0.368 0717	3190	13 20.2
30	15 49 11.73	2 59.57	20 35 21.2	9 42.9	0.368 3907	3122	13 19.3
31	15 52 11.30	3 0.22	20 45 4.1	9 32.2	0.368 7029	3055	13 18.3
Nov. 1	15 55 11.52	3 0.86	—20 54 36.3	9 21.3	0.369 0084	2989	13 17.4
2	15 58 12.38	3 1.52	21 3 57.6	9 10.2	0.369 3073	2923	13 16.5
3	16 1 13.90	3 2.16	21 13 7.8	8 58.8	0.369 5996	2857	13 15.6
4	16 4 16.06	3 2.79	21 22 6.6	8 47.3	0.369 8853	2791	13 14.7
5	16 7 18.85	3 3.43	21 30 53.9	8 35.8	0.370 1644	2725	13 13.8
6	16 10 22.28	3 4.05	21 39 29.7	8 24.0	0.370 4369	2659	13 12.9
7	16 13 26.33	3 4.69	—21 47 53.7	8 12.0	0.370 7028	2593	13 12.0
8	16 16 31.02	3 5.29	21 56 5.7	7 59.9	0.370 9621	2527	13 11.2
9	16 19 36.31	3 5.91	22 4 5.6	7 47.7	0.371 2148	2461	13 10.3
10	16 22 42.22	3 6.51	22 11 53.3	7 35.1	0.371 4609	2395	13 9.5
11	16 25 48.73	3 7.11	22 19 28.4	7 22.4	0.371 7004	2330	13 8.6
12	16 28 55.84	3 7.68	22 26 50.8	7 9.7	0.371 9334	2266	13 7.8
13	16 32 3.52	3 8.26	—22 34 0.5	6 56.6	0.372 1600	2203	13 7.0
14	16 35 11.78	3 8.82	22 40 57.1	6 43.5	0.372 3803	2141	13 6.2
15	16 38 20.60	3 9.37	22 47 40.6	6 30.2	0.372 5944	2080	13 5.4
16	16 41 29.97	3 9.91	22 54 10.8	6 16.8	0.372 8024	2019	13 4.7
17	16 44 39.88	3 10.45	23 0 27.6	6 3.2	0.373 0043	1961	13 3.9
18	16 47 50.33	3 10.97	23 6 30.8	5 49.5	0.373 2004	1902	13 3.1
19	16 51 1.30	3 11.49	—23 12 20.3	5 35.5	0.373 3906	1845	13 2.4
20	16 54 12.79	3 11.99	23 17 55.8	5 21.6	0.373 5751	1790	13 1.6
21	16 57 24.78	3 12.48	23 23 17.4	5 7.5	0.373 7541	1735	13 0.9
22	17 0 37.26	3 12.96	23 28 24.9	4 53.2	0.373 9276	1681	13 0.2
23	17 3 50.22	3 13.43	23 33 18.1	4 38.8	0.374 0957	1628	12 59.4
24	17 7 3.65		—23 37 56.9		0.374 2585		12 58.7

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	m s	° ′ ″	′ ″			h m
Nov. 24	17 7 3.65	3 13.90	−23 37 56.9	4 24.3	0.374 2585	1577	12 58.7
25	17 10 17.55	3 14.35	23 42 21.2	4 9.7	0.374 4162	1527	12 58.0
26	17 13 31.90	3 14.79	23 46 30.9	3 54.9	0.374 5689	1477	12 57.3
27	17 16 46.69	3 15.22	23 50 25.8	3 40.1	0.374 7166	1427	12 56.6
28	17 20 1.91	3 15.64	23 54 5.9	3 25.0	0.374 8593	1380	12 55.9
29	17 23 17.55	3 16.05	23 57 30.9	3 9.9	0.374 9973	1331	12 55.3
30	17 26 33.60	3 16.44	−24 0 40.8	2 54.8	0.375 1304	1283	12 54.6
Dez. 1	17 29 50.04	3 16.82	24 3 35.6	2 39.5	0.375 2587	1237	12 53.9
2	17 33 6.86	3 17.20	24 6 15.1	2 24.1	0.375 3824	1188	12 53.3
3	17 36 24.06	3 17.55	24 8 39.2	2 8.6	0.375 5012	1140	12 52.6
4	17 39 41.61	3 17.89	24 10 47.8	1 53.0	0.375 6152	1093	12 52.0
5	17 42 59.50	3 18.22	24 12 40.8	1 37.3	0.375 7245	1045	12 51.3
6	17 46 17.72	3 18.53	−24 14 18.1	1 21.6	0.375 8290	998	12 50.7
7	17 49 36.25	3 18.83	24 15 39.7	1 5.7	0.375 9288	951	12 50.1
8	17 52 55.08	3 19.11	24 16 45.4	0 49.8	0.376 0239	904	12 49.4
9	17 56 14.19	3 19.36	24 17 35.2	0 33.9	0.376 1143	857	12 48.8
10	17 59 33.55	3 19.61	24 18 9.1	0 17.8	0.376 2000	811	12 48.2
11	18 2 53.16	3 19.83	24 18 26.9	0 1.7	0.376 2811	765	12 47.6
12	18 6 12.99	3 20.03	−24 18 28.6	0 14.4	0.376 3576	721	12 47.0
13	18 9 33.02	3 20.22	24 18 14.2	0 30.6	0.376 4297	677	12 46.4
14	18 12 53.24	3 20.39	24 17 43.6	0 46.9	0.376 4974	633	12 45.8
15	18 16 13.63	3 20.53	24 16 56.7	1 3.1	0.376 5607	591	12 45.2
16	18 19 34.16	3 20.67	24 15 53.6	1 19.3	0.376 6198	550	12 44.6
17	18 22 54.83	3 20.79	24 14 34.3	1 35.6	0.376 6748	510	12 44.0
18	18 26 15.62	3 20.90	−24 12 58.7	1 51.9	0.376 7258	472	12 43.4
19	18 29 36.52	3 20.98	24 11 6.8	2 8.3	0.376 7730	434	12 42.8
20	18 32 57.50	3 21.04	24 8 58.5	2 24.7	0.376 8164	397	12 42.2
21	18 36 18.54	3 21.10	24 6 33.8	2 40.9	0.376 8561	363	12 41.6
22	18 39 39.64	3 21.13	24 3 52.9	2 57.2	0.376 8924	328	12 41.0
23	18 43 0.77	3 21.15	24 0 55.7	3 13.5	0.376 9252	294	12 40.4
24	18 46 21.92	3 21.16	−23 57 42.2	3 29.8	0.376 9546	262	12 39.8
25	18 49 43.08	3 21.15	23 54 12.4	3 46.1	0.376 9808	229	12 39.2
26	18 53 4.23	3 21.14	23 50 26.3	4 2.3	0.377 0037	198	12 38.6
27	18 56 25.37	3 21.11	23 46 24.0	4 18.5	0.377 0235	167	12 38.0
28	18 59 46.48	3 21.05	23 42 5.5	4 34.7	0.377 0402	136	12 37.4
29	19 3 7.53	3 20.99	23 37 30.8	4 50.8	0.377 0538	106	12 36.9
30	19 6 28.52	3 20.92	−23 32 40.0	5 7.0	0.377 0644	76	12 36.3
31	19 9 49.44	3 20.86	23 27 33.0	5 23.1	0.377 0720	46	12 35.7
32	19 13 10.30		−23 22 9.9		0.377 0766		12 35.1

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Jan. 0	7 11 6.53	34.32	+22 35 23.2	1 6.6	0.624 9396	1676	0 36.2
1	7 10 32.21	34.47	22 36 29.8	1 6.5	0.624 7720	1353	0 31.7
2	7 9 57.74	34.61	22 37 36.3	1 6.1	0.624 6367	1028	0 27.2
3	7 9 23.13	34.71	22 38 42.4	1 5.8	0.624 5339	702	0 22.7
4	7 8 48.42	34.78	22 39 48.2	1 5.4	0.624 4637	376	0 18.2
5	7 8 13.64	34.83	22 40 53.6	1 4.9	0.624 4261	50	0 13.7
6	7 7 38.81	34.86	+22 41 58.5	1 4.5	0.624 4211	276	0 9.2
7	7 7 3.95	34.86	22 43 3.0	1 3.9	0.624 4487	604	0 4.7
8	7 6 29.09	34.83	22 44 6.9	1 3.3	0.624 5091	931	{ 0 0.2 / 23 55.7 }
9	7 5 54.26	34.78	22 45 10.2	1 2.7	0.624 6022	1258	23 51.2
10	7 5 19.48	34.71	22 46 12.9	1 2.1	0.624 7280	1584	23 46.6
11	7 4 44.77	34.61	22 47 15.0	1 1.4	0.624 8864	1910	23 42.1
12	7 4 10.16	34.47	+22 48 16.4	1 0.6	0.625 0774	2235	23 37.6
13	7 3 35.69	34.31	22 49 17.0	0 59.9	0.625 3009	2558	23 33.1
14	7 3 1.38	34.13	22 50 16.9	0 59.1	0.625 5567	2881	23 28.6
15	7 2 27.25	33.92	22 51 16.0	0 58.2	0.625 8448	3202	23 24.1
16	7 1 53.33	33.68	22 52 14.2	0 57.4	0.626 1650	3521	23 19.6
17	7 1 19.65	33.42	22 53 11.6	0 56.5	0.626 5171	3838	23 15.1
18	7 0 46.23	33.13	+22 54 8.1	0 55.5	0.626 9009	4152	23 10.7
19	7 0 13.10	32.81	22 55 3.6	0 54.6	0.627 3161	4463	23 6.2
20	6 59 40.29	32.46	22 55 58.2	0 53.6	0.627 7624	4771	23 1.7
21	6 59 7.83	32.09	22 56 51.8	0 52.7	0.628 2395	5075	22 57.3
22	6 58 35.74	31.70	22 57 44.5	0 51.7	0.628 7470	5377	22 52.8
23	6 58 4.04	31.28	22 58 36.2	0 50.6	0.629 2847	5673	22 48.4
24	6 57 32.76	30.85	+22 59 26.8	0 49.5	0.629 8520	5966	22 43.9
25	6 57 1.91	30.39	23 0 16.3	0 48.5	0.630 4486	6255	22 39.5
26	6 56 31.52	29.90	23 1 4.8	0 47.3	0.631 0741	6540	22 35.0
27	6 56 1.62	29.39	23 1 52.1	0 46.3	0.631 7281	6820	22 30.6
28	6 55 32.23	28.87	23 2 38.4	0 45.1	0.632 4101	7094	22 26.2
29	6 55 3.36	28.33	23 3 23.5	0 44.1	0.633 1195	7364	22 21.8
30	6 54 35.03	27.76	+23 4 7.6	0 42.9	0.633 8559	7629	22 17.4
31	6 54 7.27	27.18	23 4 50.5	0 41.8	0.634 6188	7890	22 13.0
Febr. 1	6 53 40.09	26.59	23 5 32.3	0 40.7	0.635 4078	8145	22 8.7
2	6 53 13.50	25.97	23 6 13.0	0 39.5	0.636 2223	8394	22 4.3
3	6 52 47.53	25.35	23 6 52.5	0 38.4	0.637 0617	8640	22 0.0
4	6 52 22.18	24.70	23 7 30.9	0 37.3	0.637 9257	8881	21 55.6
5	6 51 57.48	24.04	+23 8 8.2	0 36.1	0.638 8138	9116	21 51.3
6	6 51 33.44	23.37	23 8 44.3	0 35.0	0.639 7254	9345	21 47.0
7	6 51 10.07	22.68	23 9 19.3	0 33.9	0.640 6599	9569	21 42.7
8	6 50 47.39	21.98	23 9 53.2	0 32.7	0.641 6168	9790	21 38.4
9	6 50 25.41	21.26	23 10 25.9	0 31.7	0.642 5958	1 0005	21 34.1
10	6 50 4.15		+23 10 57.6		0.643 5963		21 29.8

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	″			h m
Febr. 10	6 50 4.15	20.53	+23 10 57.6	30.5	0.643 5963	1 0214	21 29.8
11	6 49 43.62	19.79	23 11 28.1	29.4	0.644 6177	1 0417	21 25.6
12	6 49 23.83	19.03	23 11 57.5	28.3	0.645 6594	1 0615	21 21.3
13	6 49 4.80	18.27	23 12 25.8	27.2	0.646 7209	1 0806	21 17.1
14	6 48 46.53	17.48	23 12 53.0	26.1	0.647 8015	1 0992	21 12.8
15	6 48 29.05	16.70	23 13 19.1	25.0	0.648 9007	1 1174	21 8.6
16	6 48 12.35	15.90	+23 13 44.1	23.9	0.650 0181	1 1347	21 4.4
17	6 47 56.45	15.10	23 14 8.0	22.8	0.651 1528	1 1515	21 0.3
18	6 47 41.35	14.27	23 14 30.8	21.7	0.652 3043	1 1677	20 56.1
19	6 47 27.08	13.45	23 14 52.5	20.7	0.653 4720	1 1834	20 51.9
20	6 47 13.63	12.62	23 15 13.2	19.5	0.654 6554	1 1982	20 47.8
21	6 47 1.01	11.79	23 15 32.7	18.5	0.655 8536	1 2125	20 43.6
22	6 46 49.22	10.94	+23 15 51.2	17.5	0.657 0661	1 2263	20 39.5
23	6 46 38.28	10.09	23 16 8.7	16.4	0.658 2924	1 2394	20 35.4
24	6 46 28.19	9.24	23 16 25.1	15.3	0.659 5318	1 2518	20 31.3
25	6 46 18.95	8.40	23 16 40.4	14.3	0.660 7836	1 2637	20 27.3
26	6 46 10.55	7.54	23 16 54.7	13.3	0.662 0473	1 2751	20 23.2
27	6 46 3.01	6.69	23 17 8.0	12.2	0.663 3224	1 2857	20 19.2
28	6 45 56.32	5.83	+23 17 20.2	11.3	0.664 6081	1 2958	20 15.1
März 1	6 45 50.49	4.97	23 17 31.5	10.2	0.665 9039	1 3054	20 11.1
2	6 45 45.52	4.12	23 17 41.7	9.2	0.667 2093	1 3144	20 7.1
3	6 45 41.40	3.27	23 17 50.9	8.3	0.668 5237	1 3229	20 3.1
4	6 45 38.13	2.41	23 17 59.2	7.2	0.669 8466	1 3309	19 59.1
5	6 45 35.72	1.55	23 18 6.4	6.2	0.671 1775	1 3384	19 55.2
6	6 45 34.17	0.71	+23 18 12.6	5.2	0.672 5159	1 3455	19 51.2
7	6 45 33.46	0.15	23 18 17.8	4.3	0.673 8614	1 3520	19 47.3
8	6 45 33.61	1.00	23 18 22.1	3.3	0.675 2134	1 3580	19 43.4
9	6 45 34.61	1.85	23 18 25.4	2.4	0.676 5714	1 3636	19 39.5
10	6 45 36.46	2.70	23 18 27.8	1.4	0.677 9350	1 3688	19 35.6
11	6 45 39.16	3.55	23 18 29.2	0.4	0.679 3038	1 3733	19 31.7
12	6 45 42.71	4.39	+23 18 29.6	0.6	0.680 6771	1 3774	19 27.8
13	6 45 47.10	5.22	23 18 29.0	1.6	0.682 0545	1 3811	19 24.0
14	6 45 52.32	6.07	23 18 27.4	2.5	0.683 4356	1 3844	19 20.2
15	6 45 58.39	6.90	23 18 24.9	3.5	0.684 8200	1 3870	19 16.4
16	6 46 5.29	7.73	23 18 21.4	4.5	0.686 2070	1 3893	19 12.6
17	6 46 13.02	8.56	23 18 16.9	5.5	0.687 5963	1 3910	19 8.8
18	6 46 21.58	9.39	+23 18 11.4	6.4	0.688 9873	1 3924	19 5.0
19	6 46 30.97	10.20	23 18 5.0	7.4	0.690 3797	1 3933	19 1.2
20	6 46 41.17	11.02	23 17 57.6	8.4	0.691 7730	1 3938	18 57.5
21	6 46 52.19	11.83	23 17 49.2	9.4	0.693 1668	1 3937	18 53.7
22	6 47 4.02	12.63	23 17 39.8	10.4	0.694 5605	1 3933	18 50.0
23	6 47 16.65		+23 17 29.4		0.695 9538		18 46.3

Tag	0h Welt-Zeit: Scheinbare Rektaszension	Diff.	0h Welt-Zeit: Scheinbare Deklination	Diff.	0h Welt-Zeit: log Δ	Diff.	Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	″			h m
März 23	6 47 16.65	13.44	+23 17 29.4	11.4	0.695 9538	1 3923	18 46.3
24	6 47 30.09	14.22	23 17 18.0	12.4	0.697 3461	1 3910	18 42.6
25	6 47 44.31	15.00	23 17 5.6	13.4	0.698 7371	1 3893	18 38.9
26	6 47 59.31	15.77	23 16 52.2	14.5	0.700 1264	1 3873	18 35.2
27	6 48 15.08	16.55	23 16 37.7	15.5	0.701 5137	1 3850	18 31.6
28	6 48 31.63	17.31	23 16 22.2	16.5	0.702 8987	1 3822	18 27.9
29	6 48 48.94	18.05	+23 16 5.7	17.5	0.704 2809	1 3790	18 24.3
30	6 49 6.99	18.80	23 15 48.2	18.6	0.705 6599	1 3755	18 20.7
31	6 49 25.79	19.54	23 15 29.6	19.7	0.707 0354	1 3718	18 17.1
April 1	6 49 45.33	20.26	23 15 9.9	20.7	0.708 4072	1 3677	18 13.5
2	6 50 5.59	20.98	23 14 49.2	21.7	0.709 7749	1 3635	18 9.9
3	6 50 26.57	21.68	23 14 27.5	22.7	0.711 1384	1 3589	18 6.3
4	6 50 48.25	22.39	+23 14 4.8	23.8	0.712 4973	1 3540	18 2.7
5	6 51 10.64	23.09	23 13 41.0	24.9	0.713 8513	1 3489	17 59.2
6	6 51 33.73	23.79	23 13 16.1	25.9	0.715 2002	1 3436	17 55.6
7	6 51 57.52	24.47	23 12 50.2	27.1	0.716 5438	1 3380	17 52.1
8	6 52 21.99	25.14	23 12 23.1	28.1	0.717 8818	1 3321	17 48.6
9	6 52 47.13	25.80	23 11 55.0	29.3	0.719 2139	1 3260	17 45.1
10	6 53 12.93	26.47	+23 11 25.7	30.4	0.720 5399	1 3196	17 41.6
11	6 53 39.40	27.12	23 10 55.3	31.5	0.721 8595	1 3130	17 38.1
12	6 54 6.52	27.78	23 10 23.8	32.7	0.723 1725	1 3061	17 34.6
13	6 54 34.30	28.41	23 9 51.1	33.9	0.724 4786	1 2988	17 31.2
14	6 55 2.71	29.04	23 9 17.2	35.0	0.725 7774	1 2915	17 27.7
15	6 55 31.75	29.66	23 8 42.2	36.1	0.727 0689	1 2838	17 24.3
16	6 56 1.41	30.29	+23 8 6.1	37.3	0.728 3527	1 2760	17 20.8
17	6 56 31.70	30.90	23 7 28.8	38.6	0.729 6287	1 2679	17 17.4
18	6 57 2.60	31.49	23 6 50.2	39.8	0.730 8966	1 2595	17 14.0
19	6 57 34.09	32.09	23 6 10.4	41.0	0.732 1561	1 2509	17 10.6
20	6 58 6.18	32.67	23 5 29.4	42.3	0.733 4070	1 2420	17 7.2
21	6 58 38.85	33.24	23 4 47.1	43.5	0.734 6490	1 2331	17 3.8
22	6 59 12.09	33.81	+23 4 3.6	44.7	0.735 8821	1 2239	17 0.4
23	6 59 45.90	34.36	23 3 18.9	45.9	0.737 1060	1 2145	16 57.1
24	7 0 20.26	34.90	23 2 33.0	47.3	0.738 3205	1 2050	16 53.7
25	7 0 55.16	35.44	23 1 45.7	48.5	0.739 5255	1 1954	16 50.4
26	7 1 30.60	35.97	23 0 57.2	49.9	0.740 7209	1 1855	16 47.0
27	7 2 6.57	36.49	23 0 7.3	51.1	0.741 9064	1 1756	16 43.7
28	7 2 43.06	37.00	+22 59 16.2	52.5	0.743 0820	1 1655	16 40.4
29	7 3 20.06	37.50	22 58 23.7	53.7	0.744 2475	1 1552	16 37.1
30	7 3 57.56	38.00	22 57 30.0	55.0	0.745 4027	1 1447	16 33.8
Mai 1	7 4 35.56	38.48	22 56 35.0	56.3	0.746 5474	1 1342	16 30.5
2	7 5 14.04	38.96	22 55 38.7	57.7	0.747 6816	1 1236	16 27.2
3	7 5 53.00		+22 54 41.0		0.748 8052		16 23.9

Tag		0ʰ Welt-Zeit						Obere Kulmination in Greenwich
		Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931		h m s	s	° ′ ″	′ ″			h m
Mai	3	7 5 53.00	39.43	+22 54 41.0	0 59.0	0.748 8052	1 1129	16 23.9
	4	7 6 32.43	39.89	22 53 42.0	1 0.4	0.749 9181	1 1023	16 20.6
	5	7 7 12.32	40.35	22 52 41.6	1 1.7	0.751 0204	1 0916	16 17.4
	6	7 7 52.67	40.80	22 51 39.9	1 3.1	0.752 1120	1 0806	16 14.1
	7	7 8 33.47	41.23	22 50 36.8	1 4.5	0.753 1926	1 0696	16 10.9
	8	7 9 14.70	41.67	22 49 32.3	1 5.9	0.754 2622	1 0584	16 7.6
	9	7 9 56.37	42.10	+22 48 26.4	1 7.2	0.755 3206	1 0470	16 4.4
	10	7 10 38.47	42.52	22 47 19.2	1 8.7	0.756 3676	1 0356	16 1.2
	11	7 11 20.99	42.94	22 46 10.5	1 10.1	0.757 4032	1 0240	15 57.9
	12	7 12 3.93	43.34	22 45 0.4	1 11.5	0.758 4272	1 0123	15 54.7
	13	7 12 47.27	43.75	22 43 48.9	1 12.9	0.759 4395	1 0006	15 51.5
	14	7 13 31.02	44.14	22 42 36.0	1 14.4	0.760 4401	9888	15 48.3
	15	7 14 15.16	44.52	+22 41 21.6	1 15.8	0.761 4289	9769	15 45.1
	16	7 14 59.68	44.90	22 40 5.8	1 17.3	0.762 4058	9648	15 41.9
	17	7 15 44.58	45.27	22 38 48.5	1 18.8	0.763 3706	9525	15 38.7
	18	7 16 29.85	45.63	22 37 29.7	1 20.2	0.764 3231	9403	15 35.6
	19	7 17 15.48	45.98	22 36 9.5	1 21.6	0.765 2634	9279	15 32.4
	20	7 18 1.46	46.33	22 34 47.9	1 23.2	0.766 1913	9153	15 29.2
	21	7 18 47.79	46.66	+22 33 24.7	1 24.6	0.767 1066	9029	15 26.1
	22	7 19 34.45	47.00	22 32 0.1	1 26.2	0.768 0095	8903	15 22.9
	23	7 20 21.45	47.32	22 30 33.9	1 27.6	0.768 8998	8776	15 19.8
	24	7 21 8.77	47.64	22 29 6.3	1 29.0	0.769 7774	8648	15 16.6
	25	7 21 56.41	47.94	22 27 37.3	1 30.6	0.770 6422	8522	15 13.5
	26	7 22 44.35	48.24	22 26 6.7	1 32.0	0.771 4944	8394	15 10.3
	27	7 23 32.59	48.53	+22 24 34.7	1 33.5	0.772 3338	8265	15 7.2
	28	7 24 21.12	48.82	22 23 1.2	1 35.0	0.773 1603	8137	15 4.1
	29	7 25 9.94	49.09	22 21 26.2	1 36.5	0.773 9740	8008	15 1.0
	30	7 25 59.03	49.37	22 19 49.7	1 38.0	0.774 7748	7880	14 57.9
	31	7 26 48.40	49.63	22 18 11.7	1 39.5	0.775 5628	7751	14 54.8
Juni	1	7 27 38.03	49.89	22 16 32.2	1 41.0	0.776 3379	7622	14 51.7
	2	7 28 27.92	50.14	+22 14 51.2	1 42.5	0.777 1001	7492	14 48.6
	3	7 29 18.06	50.40	22 13 8.7	1 44.0	0.777 8493	7362	14 45.5
	4	7 30 8.46	50.63	22 11 24.7	1 45.4	0.778 5855	7231	14 42.4
	5	7 30 59.09	50.88	22 9 39.3	1 47.0	0.779 3086	7101	14 39.3
	6	7 31 49.97	51.11	22 7 52.3	1 48.5	0.780 0187	6968	14 36.2
	7	7 32 41.08	51.34	22 6 3.8	1 50.0	0.780 7155	6837	14 33.1
	8	7 33 32.42	51.55	+22 4 13.8	1 51.4	0.781 3992	6704	14 30.0
	9	7 34 23.97	51.77	22 2 22.4	1 53.0	0.782 0696	6571	14 26.9
	10	7 35 15.74	51.98	22 0 29.4	1 54.5	0.782 7267	6438	14 23.9
	11	7 36 7.72	52.19	21 58 34.9	1 56.0	0.783 3705	6304	14 20.8
	12	7 36 59.91	52.37	21 56 38.9	1 57.4	0.784 0009	6170	14 17.7
	13	7 37 52.28		+21 54 41.5		0.784 6179		14 14.7

Tag	0ʰ Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931	h m s	s	° ′ ″	′ ″			h m
Juni 13	7 37 52.28	52.57	+21 54 41.5	1 59.0	0.784 6179	6034	14 14.7
14	7 38 44.85	52.75	21 52 42.5	2 0.5	0.785 2213	5900	14 11.6
15	7 39 37.60	52.94	21 50 42.0	2 2.0	0.785 8113	5764	14 8.6
16	7 40 30.54	53.10	21 48 40.0	2 3.4	0.786 3877	5627	14 5.5
17	7 41 23.64	53.27	21 46 36.6	2 5.0	0.786 9504	5490	14 2.5
18	7 42 16.91	53.43	21 44 31.6	2 6.4	0.787 4994	5353	13 59.4
19	7 43 10.34	53.58	+21 42 25.2	2 7.9	0.788 0347	5215	13 56.4
20	7 44 3.92	53.72	21 40 17.3	2 9.4	0.788 5562	5078	13 53.4
21	7 44 57.64	53.86	21 38 7.9	2 10.8	0.789 0640	4940	13 50.3
22	7 45 51.50	53.99	21 35 57.1	2 12.2	0.789 5580	4803	13 47.3
23	7 46 45.49	54.12	21 33 44.9	2 13.7	0.790 0383	4666	13 44.2
24	7 47 39.61	54.24	21 31 31.2	2 15.1	0.790 5049	4528	13 41.2
25	7 48 33.85	54.35	+21 29 16.1	2 16.5	0.790 9577	4390	13 38.2
26	7 49 28.20	54.46	21 26 59.6	2 17.9	0.791 3967	4254	13 35.1
27	7 50 22.66	54.57	21 24 41.7	2 19.3	0.791 8221	4116	13 32.1
28	7 51 17.23	54.66	21 22 22.4	2 20.7	0.792 2337	3980	13 29.1
29	7 52 11.89	54.76	21 20 1.7	2 22.0	0.792 6317	3842	13 26.1
30	7 53 6.65	54.86	21 17 39.7	2 23.5	0.793 0159	3705	13 23.0
Juli 1	7 54 1.51	54.94	+21 15 16.2	2 24.8	0.793 3864	3568	13 20.0
2	7 54 56.45	55.02	21 12 51.4	2 26.1	0.793 7432	3430	13 17.0
3	7 55 51.47	55.09	21 10 25.3	2 27.5	0.794 0862	3292	13 14.0
4	7 56 46.56	55.16	21 7 57.8	2 28.9	0.794 4154	3155	13 11.0
5	7 57 41.72	55.24	21 5 28.9	2 30.2	0.794 7309	3017	13 7.9
6	7 58 36.96	55.30	21 2 58.7	2 31.5	0.795 0326	2879	13 4.9
7	7 59 32.26	55.36	+21 0 27.2	2 32.9	0.795 3205	2741	13 1.9
8	8 0 27.62	55.41	20 57 54.3	2 34.1	0.795 5946	2601	12 58.9
9	8 1 23.03	55.45	20 55 20.2	2 35.4	0.795 8547	2462	12 55.9
10	8 2 18.48	55.50	20 52 44.8	2 36.7	0.796 1009	2323	12 52.9
11	8 3 13.98	55.54	20 50 8.1	2 37.9	0.796 3332	2183	12 49.9
12	8 4 9.52	55.58	20 47 30.2	2 39.2	0.796 5515	2042	12 46.8
13	8 5 5.10	55.60	+20 44 51.0	2 40.4	0.796 7557	1901	12 43.8
14	8 6 0.70	55.62	20 42 10.6	2 41.7	0.796 9458	1761	12 40.8
15	8 6 56.32	55.63	20 39 28.9	2 42.9	0.797 1219	1620	12 37.8
16	8 7 51.95	55.64	20 36 46.0	2 44.1	0.797 2839	1479	12 34.8
17	8 8 47.59	55.65	20 34 1.9	2 45.2	0.797 4318	1339	12 31.8
18	8 9 43.24	55.65	20 31 16.7	2 46.3	0.797 5657	1198	12 28.8
19	8 10 38.89	55.64	+20 28 30.4	2 47.5	0.797 6855	1057	12 25.8
20	8 11 34.53	55.62	20 25 42.9	2 48.6	0.797 7912	917	12 22.8
21	8 12 30.15	55.61	20 22 54.3	2 49.7	0.797 8829	775	12 19.8
22	8 13 25.76	55.59	20 20 4.6	2 50.7	0.797 9604	635	12 16.8
23	8 14 21.35	55.57	20 17 13.9	2 51.8	0.798 0239	494	12 13.8
24	8 15 16.92		+20 14 22.1		0.798 0733		12 10.7

Tag	0ʰ Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Juli 24	8 15 16.92	55.53	+20 14 22.1	2 52.8	0.798 0733	355	12 10.7
25	8 16 12.45	55.49	20 11 29.3	2 53.9	0.798 1088	215	12 7.7
26	8 17 7.94	55.45	20 8 35.4	2 54.8	0.798 1303	76	12 4.7
27	8 18 3.39	55.40	20 5 40.6	2 55.8	0.798 1379	63	12 1.7
28	8 18 58.79	55.35	20 2 44.8	2 56.8	0.798 1316	203	11 58.7
29	8 19 54.14	55.30	19 59 48.0	2 57.6	0.798 1113	341	11 55.7
30	8 20 49.44	55.25	+19 56 50.4	2 58.6	0.798 0772	480	11 52.6
31	8 21 44.69	55.18	19 53 51.8	2 59.6	0.798 0292	622	11 49.6
Aug. 1	8 22 39.87	55.12	19 50 52.2	3 0.4	0.797 9670	761	11 46.6
2	8 23 34.99	55.05	19 47 51.8	3 1.2	0.797 8909	900	11 43.6
3	8 24 30.04	54.98	19 44 50.6	3 2.1	0.797 8009	1040	11 40.6
4	8 25 25.02	54.90	19 41 48.5	3 3.0	0.797 6969	1180	11 37.6
5	8 26 19.92	54.82	+19 38 45.5	3 3.8	0.797 5789	1320	11 34.5
6	8 27 14.74	54.73	19 35 41.7	3 4.5	0.797 4469	1459	11 31.5
7	8 28 9.47	54.64	19 32 37.2	3 5.2	0.797 3010	1601	11 28.5
8	8 29 4.11	54.54	19 29 32.0	3 6.0	0.797 1409	1741	11 25.5
9	8 29 58.65	54.43	19 26 26.0	3 6.7	0.796 9668	1883	11 22.4
10	8 30 53.08	54.33	19 23 19.3	3 7.4	0.796 7785	2023	11 19.4
11	8 31 47.41	54.23	+19 20 11.9	3 8.0	0.796 5762	2165	11 16.3
12	8 32 41.64	54.10	19 17 3.9	3 8.6	0.796 3597	2306	11 13.3
13	8 33 35.74	53.98	19 13 55.3	3 9.2	0.796 1291	2447	11 10.3
14	8 34 29.72	53.85	19 10 46.1	3 9.8	0.795 8844	2589	11 7.3
15	8 35 23.57	53.71	19 7 36.3	3 10.3	0.795 6255	2729	11 4.2
16	8 36 17.28	53.57	19 4 26.0	3 10.9	0.795 3526	2870	11 1.2
17	8 37 10.85	53.42	+19 1 15.1	3 11.3	0.795 0656	3011	10 58.2
18	8 38 4.27	53.28	18 58 3.8	3 11.7	0.794 7645	3151	10 55.1
19	8 38 57.55	53.12	18 54 52.1	3 12.2	0.794 4494	3291	10 52.1
20	8 39 50.67	52.96	18 51 39.9	3 12.5	0.794 1203	3429	10 49.0
21	8 40 43.63	52.80	18 48 27.4	3 12.9	0.793 7774	3569	10 45.9
22	8 41 36.43	52.62	18 45 14.5	3 13.1	0.793 4205	3707	10 42.9
23	8 42 29.05	52.45	+18 42 1.4	3 13.5	0.793 0498	3845	10 39.8
24	8 43 21.50	52.28	18 38 47.9	3 13.7	0.792 6653	3984	10 36.8
25	8 44 13.78	52.09	18 35 34.2	3 13.9	0.792 2669	4122	10 33.7
26	8 45 5.87	51.91	18 32 20.3	3 14.2	0.791 8547	4259	10 30.6
27	8 45 57.78	51.71	18 29 6.1	3 14.4	0.791 4288	4396	10 27.5
28	8 46 49.49	51.52	18 25 51.7	3 14.4	0.790 9892	4534	10 24.5
29	8 47 41.01	51.33	+18 22 37.3	3 14.6	0.790 5358	4672	10 21.4
30	8 48 32.34	51.12	18 19 22.7	3 14.7	0.790 0686	4809	10 18.3
31	8 49 23.46	50.91	18 16 8.0	3 14.8	0.789 5877	4946	10 15.2
Sept. 1	8 50 14.37	50.69	18 12 53.2	3 14.8	0.789 0931	5084	10 12.1
2	8 51 5.06	50.48	18 9 38.4	3 14.8	0.788 5847	5221	10 9.0
3	8 51 55.54		+18 6 23.6		0.788 0626		10 5.9

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension	Diff.	0ʰ Welt-Zeit: Scheinbare Deklination	Diff.	0ʰ Welt-Zeit: log Δ	Diff.	Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Sept. 3	8 51 55.54	50.26	+18 6 23.6	3 14.8	0.788 0626	5358	10 5.9
4	8 52 45.80	50.03	18 3 8.8	3 14.6	0.787 5268	5496	10 2.8
5	8 53 35.83	49.80	17 59 54.2	3 14.6	0.786 9772	5632	9 59.7
6	8 54 25.63	49.56	17 56 39.6	3 14.4	0.786 4140	5770	9 56.6
7	8 55 15.19	49.32	17 53 25.2	3 14.2	0.785 8370	5906	9 53.5
8	8 56 4.51	49.06	17 50 11.0	3 14.0	0.785 2464	6043	9 50.4
9	8 56 53.57	48.80	+17 46 57.0	3 13.7	0.784 6421	6180	9 47.3
10	8 57 42.37	48.55	17 43 43.3	3 13.5	0.784 0241	6316	9 44.2
11	8 58 30.92	48.27	17 40 29.8	3 13.1	0.783 3925	6453	9 41.0
12	8 59 19.19	48.01	17 37 16.7	3 12.7	0.782 7472	6588	9 37.9
13	9 0 7.20	47.73	17 34 4.0	3 12.1	0.782 0884	6722	9 34.8
14	9 0 54.93	47.43	17 30 51.9	3 11.7	0.781 4162	6857	9 31.6
15	9 1 42.36	47.15	+17 27 40.2	3 11.2	0.780 7305	6990	9 28.5
16	9 2 29.51	46.84	17 24 29.0	3 10.7	0.780 0315	7123	9 25.3
17	9 3 16.35	46.54	17 21 18.3	3 10.0	0.779 3192	7255	9 22.1
18	9 4 2.89	46.24	17 18 8.3	3 9.4	0.778 5937	7386	9 19.0
19	9 4 49.13	45.92	17 14 58.9	3 8.8	0.777 8551	7517	9 15.8
20	9 5 35.05	45.60	17 11 50.1	3 8.0	0.777 1034	7647	9 12.7
21	9 6 20.65	45.28	+17 8 42.1	3 7.3	0.776 3387	7776	9 9.5
22	9 7 5.93	44.95	17 5 34.8	3 6.4	0.775 5611	7905	9 6.3
23	9 7 50.88	44.62	17 2 28.4	3 5.6	0.774 7706	8033	9 3.1
24	9 8 35.50	44.27	16 59 22.8	3 4.7	0.773 9673	8160	8 59.9
25	9 9 19.77	43.94	16 56 18.1	3 3.8	0.773 1513	8287	8 56.7
26	9 10 3.71	43.59	16 53 14.3	3 2.8	0.772 3226	8413	8 53.5
27	9 10 47.30	43.23	+16 50 11.5	3 1.9	0.771 4813	8539	8 50.3
28	9 11 30.53	42.87	16 47 9.6	3 0.8	0.770 6274	8665	8 47.1
29	9 12 13.40	42.51	16 44 8.8	2 59.7	0.769 7609	8789	8 43.9
30	9 12 55.91	42.14	16 41 9.1	2 58.7	0.768 8820	8913	8 40.6
Okt. 1	9 13 38.05	41.76	16 38 10.4	2 57.5	0.767 9907	9037	8 37.4
2	9 14 19.81	41.38	16 35 12.9	2 56.3	0.767 0870	9160	8 34.2
3	9 15 1.19	40.98	+16 32 16.6	2 55.0	0.766 1710	9282	8 30.9
4	9 15 42.17	40.60	16 29 21.6	2 53.7	0.765 2428	9404	8 27.7
5	9 16 22.77	40.20	16 26 27.9	2 52.3	0.764 3024	9525	8 24.4
6	9 17 2.97	39.78	16 23 35.6	2 50.9	0.763 3499	9645	8 21.1
7	9 17 42.75	39.36	16 20 44.7	2 49.4	0.762 3854	9764	8 17.9
8	9 18 22.11	38.95	16 17 55.3	2 48.0	0.761 4090	9883	8 14.6
9	9 19 1.06	38.51	+16 15 7.3	2 46.4	0.760 4207	9999	8 11.3
10	9 19 39.57	38.08	16 12 20.9	2 44.8	0.759 4208	1 0115	8 8.0
11	9 20 17.65	37.63	16 9 36.1	2 43.2	0.758 4093	1 0229	8 4.7
12	9 20 55.28	37.18	16 6 52.9	2 41.4	0.757 3864	1 0343	8 1.4
13	9 21 32.46	36.72	16 4 11.5	2 39.6	0.756 3521	1 0454	7 58.1
14	9 22 9.18		+16 1 31.9		0.755 3067		7 54.7

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Okt. 14	9 22 9.18	36.25	+16 1 31.9	2 37.9	0.755 3067	1 0564	7 54.7
15	9 22 45.43	35.79	15 58 54.0	2 35.9	0.754 2503	1 0672	7 51.4
16	9 23 21.22	35.30	15 56 18.1	2 34.1	0.753 1831	1 0779	7 48.1
17	9 23 56.52	34.82	15 53 44.0	2 32.1	0.752 1052	1 0884	7 44.7
18	9 24 31.34	34.33	15 51 11.9	2 30.1	0.751 0168	1 0987	7 41.4
19	9 25 5.67	33.84	15 48 41.8	2 28.1	0.749 9181	1 1089	7 38.0
20	9 25 39.51	33.34	+15 46 13.7	2 26.0	0.748 8092	1 1189	7 34.6
21	9 26 12.85	32.83	15 43 47.7	2 23.9	0.747 6903	1 1288	7 31.2
22	9 26 45.68	32.32	15 41 23.8	2 21.6	0.746 5615	1 1384	7 27.8
23	9 27 18.00	31.80	15 39 2.2	2 19.4	0.745 4231	1 1479	7 24.4
24	9 27 49.80	31.28	15 36 42.8	2 17.2	0.744 2752	1 1572	7 21.0
25	9 28 21.08	30.75	15 34 25.6	2 14.9	0.743 1180	1 1665	7 17.6
26	9 28 51.83	30.21	+15 32 10.7	2 12.4	0.741 9515	1 1755	7 14.2
27	9 29 22.04	29.66	15 29 58.3	2 10.1	0.740 7760	1 1845	7 10.8
28	9 29 51.70	29.12	15 27 48.2	2 7.6	0.739 5915	1 1932	7 7.3
29	9 30 20.82	28.56	15 25 40.6	2 5.2	0.738 3983	1 2017	7 3.8
30	9 30 49.38	28.00	15 23 35.4	2 2.6	0.737 1966	1 2101	7 0.4
31	9 31 17.38	27.42	15 21 32.8	2 0.0	0.735 9865	1 2182	6 56.9
Nov. 1	9 31 44.80	26.85	+15 19 32.8	1 57.3	0.734 7683	1 2261	6 53.5
2	9 32 11.65	26.27	15 17 35.5	1 54.6	0.733 5422	1 2338	6 50.0
3	9 32 37.92	25.67	15 15 40.9	1 51.9	0.732 3084	1 2412	6 46.5
4	9 33 3.59	25.07	15 13 49.0	1 49.1	0.731 0672	1 2486	6 43.0
5	9 33 28.66	24.47	15 11 59.9	1 46.2	0.729 8186	1 2556	6 39.5
6	9 33 53.13	23.85	15 10 13.7	1 43.3	0.728 5630	1 2624	6 35.9
7	9 34 16.98	23.22	+15 8 30.4	1 40.3	0.727 3006	1 2690	6 32.4
8	9 34 40.20	22.60	15 6 50.1	1 37.4	0.726 0316	1 2751	6 28.8
9	9 35 2.80	21.96	15 5 12.7	1 34.3	0.724 7565	1 2810	6 25.3
10	9 35 24.76	21.32	15 3 38.4	1 31.2	0.723 4755	1 2865	6 21.7
11	9 35 46.08	20.67	15 2 7.2	1 28.0	0.722 1890	1 2918	6 18.1
12	9 36 6.75	20.01	15 0 39.2	1 24.8	0.720 8972	1 2967	6 14.5
13	9 36 26.76	19.35	+14 59 14.4	1 21.6	0.719 6005	1 3012	6 10.9
14	9 36 46.11	18.69	14 57 52.8	1 18.4	0.718 2993	1 3054	6 7.3
15	9 37 4.80	18.02	14 56 34.4	1 15.0	0.716 9939	1 3093	6 3.7
16	9 37 22.82	17.34	14 55 19.4	1 11.7	0.715 6846	1 3130	6 0.0
17	9 37 40.16	16.66	14 54 7.7	1 8.4	0.714 3716	1 3161	5 56.4
18	9 37 56.82	15.96	14 52 59.3	1 4.9	0.713 0555	1 3190	5 52.8
19	9 38 12.78	15.28	+14 51 54.4	1 1.5	0.711 7365	1 3216	5 49.1
20	9 38 28.06	14.58	14 50 52.9	0 58.1	0.710 4149	1 3237	5 45.4
21	9 38 42.64	13.88	14 49 54.8	0 54.5	0.709 0912	1 3256	5 41.7
22	9 38 56.52	13.18	14 49 0.3	0 51.0	0.707 7656	1 3271	5 38.0
23	9 39 9.70	12.46	14 48 9.3	0 47.4	0.706 4385	1 3282	5 34.3
24	9 39 22.16		+14 47 21.9		0.705 1103		5 30.6

Tag	0h Welt-Zeit: Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Nov. 24	9 39 22.16	11.75	+14 47 21.9	0 43.9	0.705 1103	1 3289	5 30.6
25	9 39 33.91	11.04	14 46 38.0	0 40.3	0.703 7814	1 3293	5 26.8
26	9 39 44.95	10.30	14 45 57.7	0 36.7	0.702 4521	1 3293	5 23.1
27	9 39 55.25	9.58	14 45 21.0	0 32.9	0.701 1228	1 3289	5 19.3
28	9 40 4.83	8.84	14 44 48.1	0 29.3	0.699 7939	1 3281	5 15.5
29	9 40 13.67	8.11	14 44 18.8	0 25.5	0.698 4658	1 3270	5 11.7
30	9 40 21.78	7.36	+14 43 53.3	0 21.8	0.697 1388	1 3255	5 7.9
Dez. 1	9 40 29.14	6.61	14 43 31.5	0 18.0	0.695 8133	1 3233	5 4.1
2	9 40 35.75	5.85	14 43 13.5	0 14.2	0.694 4900	1 3209	5 0.3
3	9 40 41.60	5.11	14 42 59.3	0 10.4	0.693 1691	1 3178	4 56.5
4	9 40 46.71	4.35	14 42 48.9	0 6.5	0.691 8513	1 3144	4 52.6
5	9 40 51.06	3.57	14 42 42.4	0 2.6	0.690 5369	1 3104	4 48.7
6	9 40 54.63	2.81	+14 42 39.8	0 1.2	0.689 2265	1 3059	4 44.8
7	9 40 57.44	2.05	14 42 41.0	0 5.1	0.687 9206	1 3009	4 41.0
8	9 40 59.49	1.27	14 42 46.1	0 9.0	0.686 6197	1 2954	4 37.1
9	9 41 0.76	0.49	14 42 55.1	0 12.9	0.685 3243	1 2892	4 33.2
10	9 41 1.25	0.28	14 43 8.0	0 16.8	0.684 0351	1 2827	4 29.3
11	9 41 0.97	1.05	14 43 24.8	0 20.7	0.682 7524	1 2754	4 25.3
12	9 40 59.92	1.83	+14 43 45.5	0 24.6	0.681 4770	1 2676	4 21.4
13	9 40 58.09	2.59	14 44 10.1	0 28.5	0.680 2094	1 2594	4 17.4
14	9 40 55.50	3.37	14 44 38.6	0 32.4	0.678 9500	1 2506	4 13.4
15	9 40 52.13	4.13	14 45 11.0	0 36.2	0.677 6994	1 2412	4 9.4
16	9 40 48.00	4.91	14 45 47.2	0 40.1	0.676 4582	1 2314	4 5.4
17	9 40 43.09	5.67	14 46 27.3	0 43.9	0.675 2268	1 2209	4 1.4
18	9 40 37.42	6.43	+14 47 11.2	0 47.6	0.674 0059	1 2098	3 57.4
19	9 40 30.99	7.20	14 47 58.8	0 51.4	0.672 7961	1 1984	3 53.3
20	9 40 23.79	7.95	14 48 50.2	0 55.1	0.671 5977	1 1863	3 49.3
21	9 40 15.84	8.71	14 49 45.3	0 58.8	0.670 4114	1 1736	3 45.2
22	9 40 7.13	9.45	14 50 44.1	1 2.5	0.669 2378	1 1606	3 41.1
23	9 39 57.68	10.20	14 51 46.6	1 6.2	0.668 0772	1 1468	3 37.0
24	9 39 47.48	10.94	+14 52 52.8	1 9.8	0.666 9304	1 1326	3 32.9
25	9 39 36.54	11.68	14 54 2.6	1 13.3	0.665 7978	1 1179	3 28.8
26	9 39 24.86	12.41	14 55 15.9	1 16.9	0.664 6799	1 1025	3 24.7
27	9 39 12.45	13.14	14 56 32.8	1 20.4	0.663 5774	1 0866	3 20.6
28	9 38 59.31	13.86	14 57 53.2	1 23.9	0.662 4908	1 0702	3 16.4
29	9 38 45.45	14.57	14 59 17.1	1 27.2	0.661 4206	1 0533	3 12.2
30	9 38 30.88	15.28	+15 0 44.3	1 30.6	0.660 3673	1 0356	3 8.1
31	9 38 15.60	15.99	15 2 14.9	1 34.0	0.659 3317	1 0174	3 3.9
32	9 37 59.61		+15 3 48.9		0.658 3143		2 59.7

Tag		0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931		h m s	s	° ′ ″	″			h m
Jan.	0	18 58 53.48	30.55	−22 24 13.4	38.9	1.041 8956	498	12 22.3
	1	18 59 24.03	30.57	22 23 34.5	39.3	1.041 9454	396	12 18.9
	2	18 59 54.60	30.58	22 22 55.2	39.7	1.041 9850	294	12 15.5
	3	19 0 25.18	30.59	22 22 15.5	40.1	1.042 0144	192	12 12.0
	4	19 0 55.77	30.60	22 21 35.4	40.5	1.042 0336	88	12 8.6
	5	19 1 26.37	30.59	22 20 54.9	40.9	1.042 0424	14	12 5.2
	6	19 1 56.96	30.58	−22 20 14.0	41.2	1.042 0410	118	12 1.8
	7	19 2 27.54	30.58	22 19 32.8	41.7	1.042 0292	220	11 58.3
	8	19 2 58.12	30.56	22 18 51.1	42.0	1.042 0072	323	11 54.9
	9	19 3 28.68	30.54	22 18 9.1	42.4	1.041 9749	425	11 51.5
	10	19 3 59.22	30.51	22 17 26.7	42.7	1.041 9324	528	11 48.1
	11	19 4 29.73	30.49	22 16 44.0	43.1	1.041 8796	631	11 44.7
	12	19 5 0.22	30.45	−22 16 0.9	43.5	1.041 8165	734	11 41.2
	13	19 5 30.67	30.41	22 15 17.4	43.8	1.041 7431	837	11 37.8
	14	19 6 1.08	30.37	22 14 33.6	44.1	1.041 6594	940	11 34.4
	15	19 6 31.45	30.31	22 13 49.5	44.4	1.041 5654	1044	11 30.9
	16	19 7 1.76	30.26	22 13 5.1	44.7	1.041 4610	1146	11 27.5
	17	19 7 32.02	30.20	22 12 20.4	45.1	1.041 3464	1249	11 24.1
	18	19 8 2.22	30.12	−22 11 35.3	45.3	1.041 2215	1352	11 20.6
	19	19 8 32.34	30.06	22 10 50.0	45.5	1.041 0863	1454	11 17.2
	20	19 9 2.40	29.98	22 10 4.5	45.8	1.040 9409	1555	11 13.8
	21	19 9 32.38	29.90	22 9 18.7	46.1	1.040 7854	1657	11 10.3
	22	19 10 2.28	29.80	22 8 32.6	46.3	1.040 6197	1758	11 6.9
	23	19 10 32.08	29.71	22 7 46.3	46.5	1.040 4439	1860	11 3.5
	24	19 11 1.79	29.61	−22 6 59.8	46.7	1.040 2579	1961	11 0.0
	25	19 11 31.40	29.51	22 6 13.1	46.9	1.040 0618	2059	10 56.6
	26	19 12 0.91	29.41	22 5 26.2	47.1	1.039 8559	2159	10 53.2
	27	19 12 30.32	29.29	22 4 39.1	47.2	1.039 6400	2259	10 49.7
	28	19 12 59.61	29.18	22 3 51.9	47.4	1.039 4141	2357	10 46.3
	29	19 13 28.79	29.05	22 3 4.5	47.6	1.039 1784	2455	10 42.8
	30	19 13 57.84	28.92	−22 2 16.9	47.6	1.038 9329	2552	10 39.4
	31	19 14 26.76	28.79	22 1 29.3	47.8	1.038 6777	2650	10 35.9
Febr.	1	19 14 55.55	28.65	22 0 41.5	47.8	1.038 4127	2746	10 32.4
	2	19 15 24.20	28.52	21 59 53.7	48.0	1.038 1381	2841	10 29.0
	3	19 15 52.72	28.37	21 59 5.7	48.0	1.037 8540	2936	10 25.6
	4	19 16 21.09	28.22	21 58 17.7	48.1	1.037 5604	3032	10 22.1
	5	19 16 49.31	28.06	−21 57 29.6	48.2	1.037 2572	3127	10 18.6
	6	19 17 17.37	27.92	21 56 41.4	48.2	1.036 9445	3222	10 15.2
	7	19 17 45.29	27.75	21 55 53.2	48.2	1.036 6223	3316	10 11.7
	8	19 18 13.04	27.58	21 55 5.0	48.2	1.036 2907	3409	10 8.2
	9	19 18 40.62	27.41	21 54 16.8	48.3	1.035 9498	3503	10 4.7
	10	19 19 8.03		−21 53 28.5		1.035 5995		10 1.3

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	″			h m
Febr. 10	19 19 8.03	27.24	−21 53 28.5	48.2	1.035 5995	3595	10 1.3
11	19 19 35.27	27.05	21 52 40.3	48.2	1.035 2400	3687	9 57.8
12	19 20 2.32	26.87	21 51 52.1	48.1	1.034 8713	3778	9 54.3
13	19 20 29.19	26.68	21 51 4.0	48.0	1.034 4935	3869	9 50.8
14	19 20 55.87	26.48	21 50 16.0	48.0	1.034 1066	3959	9 47.3
15	19 21 22.35	26.28	21 49 28.0	47.9	1.033 7107	4048	9 43.8
16	19 21 48.63	26.08	−21 48 40.1	47.8	1.033 3059	4137	9 40.3
17	19 22 14.71	25.87	21 47 52.3	47.7	1.032 8922	4225	9 36.8
18	19 22 40.58	25.65	21 47 4.6	47.5	1.032 4697	4313	9 33.3
19	19 23 6.23	25.42	21 46 17.1	47.3	1.032 0384	4398	9 29.8
20	19 23 31.65	25.20	21 45 29.8	47.1	1.031 5986	4484	9 26.3
21	19 23 56.85	24.97	21 44 42.7	46.9	1.031 1502	4567	9 22.8
22	19 24 21.82	24.74	−21 43 55.8	46.7	1.030 6935	4651	9 19.2
23	19 24 46.56	24.50	21 43 9.1	46.5	1.030 2284	4732	9 15.7
24	19 25 11.06	24.25	21 42 22.6	46.3	1.029 7552	4814	9 12.2
25	19 25 35.31	24.00	21 41 36.3	45.9	1.029 2738	4895	9 8.7
26	19 25 59.31	23.76	21 40 50.4	45.7	1.028 7843	4974	9 5.1
27	19 26 23.07	23.50	21 40 4.7	45.4	1.028 2869	5051	9 1.6
28	19 26 46.57	23.24	−21 39 19.3	45.1	1.027 7818	5129	8 58.1
März 1	19 27 9.81	22.98	21 38 34.2	44.7	1.027 2689	5206	8 54.5
2	19 27 32.79	22.71	21 37 49.5	44.4	1.026 7483	5280	8 50.9
3	19 27 55.50	22.45	21 37 5.1	44.0	1.026 2203	5355	8 47.4
4	19 28 17.95	22.17	21 36 21.1	43.7	1.025 6848	5428	8 43.8
5	19 28 40.12	21.89	21 35 37.4	43.3	1.025 1420	5500	8 40.3
6	19 29 2.01	21.61	−21 34 54.1	42.9	1.024 5920	5570	8 36.7
7	19 29 23.62	21.33	21 34 11.2	42.5	1.024 0350	5642	8 33.1
8	19 29 44.95	21.03	21 33 28.7	42.0	1.023 4708	5711	8 29.5
9	19 30 5.98	20.75	21 32 46.7	41.5	1.022 8997	5779	8 25.9
10	19 30 26.73	20.45	21 32 5.2	41.1	1.022 3218	5847	8 22.3
11	19 30 47.18	20.14	21 31 24.1	40.7	1.021 7371	5913	8 18.7
12	19 31 7.32	19.84	−21 30 43.4	40.1	1.021 1458	5978	8 15.1
13	19 31 27.16	19.54	21 30 3.3	39.6	1.020 5480	6042	8 11.5
14	19 31 46.70	19.22	21 29 23.7	39.1	1.019 9438	6104	8 7.9
15	19 32 5.92	18.90	21 28 44.6	38.5	1.019 3334	6165	8 4.3
16	19 32 24.82	18.58	21 28 6.1	37.9	1.018 7169	6225	8 0.7
17	19 32 43.40	18.24	21 27 28.2	37.4	1.018 0944	6284	7 57.1
18	19 33 1.64	17.92	−21 26 50.8	36.8	1.017 4660	6341	7 53.5
19	19 33 19.56	17.58	21 26 14.0	36.2	1.016 8319	6397	7 49.8
20	19 33 37.14	17.25	21 25 37.8	35.5	1.016 1922	6451	7 46.2
21	19 33 54.39	16.91	21 25 2.3	34.8	1.015 5471	6503	7 42.6
22	19 34 11.30	16.56	21 24 27.5	34.2	1.014 8968	6555	7 38.9
23	19 34 27.86		−21 23 53.3		1.014 2413		7 35.2

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	″			h m
März 23	19 34 27.86	16.21	−21 23 53.3	33.6	1.014 2413	6604	7 35.2
24	19 34 44.07	15.86	21 23 19.7	32.8	1.013 5809	6651	7 31.6
25	19 34 59.93	15.51	21 22 46.9	32.2	1.012 9158	6697	7 27.9
26	19 35 15.44	15.15	21 22 14.7	31.4	1.012 2461	6742	7 24.2
27	19 35 30.59	14.80	21 21 43.3	30.6	1.011 5719	6784	7 20.5
28	19 35 45.39	14.43	21 21 12.7	29.9	1.010 8935	6826	7 16.8
29	19 35 59.82	14.07	−21 20 42.8	29.2	1.010 2109	6866	7 13.1
30	19 36 13.89	13.70	21 20 13.6	28.3	1.009 5243	6904	7 9.4
31	19 36 27.59	13.33	21 19 45.3	27.6	1.008 8339	6940	7 5.7
April 1	19 36 40.92	12.96	21 19 17.7	26.8	1.008 1399	6975	7 2.0
2	19 36 53.88	12.59	21 18 50.9	26.0	1.007 4424	7008	6 58.3
3	19 37 6.47	12.21	21 18 24.9	25.2	1.006 7416	7040	6 54.6
4	19 37 18.68	11.84	−21 17 59.7	24.4	1.006 0376	7071	6 50.9
5	19 37 30.52	11.45	21 17 35.3	23.5	1.005 3305	7100	6 47.1
6	19 37 41.97	11.07	21 17 11.8	22.6	1.004 6205	7127	6 43.4
7	19 37 53.04	10.68	21 16 49.2	21.8	1.003 9078	7152	6 39.6
8	19 38 3.72	10.30	21 16 27.4	21.0	1.003 1926	7176	6 35.8
9	19 38 14.02	9.90	21 16 6.4	20.0	1.002 4750	7198	6 32.1
10	19 38 23.92	9.50	−21 15 46.4	19.2	1.001 7552	7217	6 28.3
11	19 38 33.42	9.12	21 15 27.2	18.2	1.001 0335	7236	6 24.6
12	19 38 42.54	8.71	21 15 9.0	17.4	1.000 3099	7252	6 20.8
13	19 38 51.25	8.31	21 14 51.6	16.4	0.999 5847	7266	6 17.0
14	19 38 59.56	7.91	21 14 35.2	15.4	0.998 8581	7279	6 13.2
15	19 39 7.47	7.50	21 14 19.8	14.5	0.998 1302	7290	6 9.4
16	19 39 14.97	7.10	−21 14 5.3	13.7	0.997 4012	7298	6 5.6
17	19 39 22.07	6.68	21 13 51.6	12.6	0.996 6714	7304	6 1.8
18	19 39 28.75	6.28	21 13 39.0	11.6	0.995 9410	7308	5 57.9
19	19 39 35.03	5.86	21 13 27.4	10.6	0.995 2102	7310	5 54.1
20	19 39 40.89	5.45	21 13 16.8	9.7	0.994 4792	7308	5 50.3
21	19 39 46.34	5.04	21 13 7.1	8.7	0.993 7484	7306	5 46.4
22	19 39 51.38	4.62	−21 12 58.4	7.7	0.993 0178	7301	5 42.6
23	19 39 56.00	4.21	21 12 50.7	6.7	0.992 2877	7294	5 38.7
24	19 40 0.21	3.80	21 12 44.0	5.6	0.991 5583	7285	5 34.9
25	19 40 4.01	3.38	21 12 38.4	4.7	0.990 8298	7273	5 31.0
26	19 40 7.39	2.97	21 12 33.7	3.7	0.990 1025	7260	5 27.1
27	19 40 10.36	2.56	21 12 30.0	2.7	0.989 3765	7244	5 23.2
28	19 40 12.92	2.14	−21 12 27.3	1.6	0.988 6521	7227	5 19.3
29	19 40 15.06	1.73	21 12 25.7	0.7	0.987 9294	7207	5 15.4
30	19 40 16.79	1.32	21 12 25.0	0.3	0.987 2087	7186	5 11.5
Mai 1	19 40 18.11	0.90	21 12 25.3	1.4	0.986 4901	7161	5 7.6
2	19 40 19.01	0.50	21 12 26.7	2.3	0.985 7740	7135	5 3.7
3	19 40 19.51		−21 12 29.0		0.985 0605		4 59.8

Tag		0h Welt-Zeit Scheinbare Rektaszension	Diff.	Scheinbare Deklination	Diff.	log Δ	Diff.	Obere Kulmination in Greenwich
1931		h m s	s	° ′ ″	″			h m
Mai	3	19 40 19.51	0.08	−21 12 29.0	3.4	0.985 0605	7108	4 59.8
	4	19 40 19.59	0.34	21 12 32.4	4.3	0.984 3497	7078	4 55.8
	5	19 40 19.25	0.74	21 12 36.7	5.4	0.983 6419	7046	4 51.9
	6	19 40 18.51	1.16	21 12 42.1	6.3	0.982 9373	7011	4 48.0
	7	19 40 17.35	1.57	21 12 48.4	7.4	0.982 2362	6975	4 44.0
	8	19 40 15.78	1.98	21 12 55.8	8.4	0.981 5387	6936	4 40.1
	9	19 40 13.80	2.39	−21 13 4.2	9.4	0.980 8451	6895	4 36.1
	10	19 40 11.41	2.80	21 13 13.6	10.3	0.980 1556	6853	4 32.1
	11	19 40 8.61	3.20	21 13 23.9	11.4	0.979 4703	6807	4 28.1
	12	19 40 5.41	3.61	21 13 35.3	12.3	0.978 7896	6758	4 24.1
	13	19 40 1.80	4.02	21 13 47.6	13.3	0.978 1138	6707	4 20.1
	14	19 39 57.78	4.42	21 14 0.9	14.3	0.977 4431	6654	4 16.2
	15	19 39 53.36	4.82	−21 14 15.2	15.3	0.976 7777	6599	4 12.2
	16	19 39 48.54	5.22	21 14 30.5	16.2	0.976 1178	6541	4 8.1
	17	19 39 43.32	5.62	21 14 46.7	17.2	0.975 4637	6481	4 4.1
	18	19 39 37.70	6.00	21 15 3.9	18.1	0.974 8156	6418	4 0.1
	19	19 39 31.70	6.40	21 15 22.0	19.1	0.974 1738	6354	3 56.1
	20	19 39 25.30	6.78	21 15 41.1	20.0	0.973 5384	6286	3 52.0
	21	19 39 18.52	7.16	−21 16 1.1	21.0	0.972 9098	6216	3 48.0
	22	19 39 11.36	7.55	21 16 22.1	21.8	0.972 2882	6144	3 43.9
	23	19 39 3.81	7.92	21 16 43.9	22.7	0.971 6738	6069	3 39.9
	24	19 38 55.89	8.29	21 17 6.6	23.6	0.971 0669	5993	3 35.8
	25	19 38 47.60	8.66	21 17 30.2	24.4	0.970 4676	5914	3 31.7
	26	19 38 38.94	9.03	21 17 54.6	25.3	0.969 8762	5834	3 27.7
	27	19 38 29.91	9.38	−21 18 19.9	26.2	0.969 2928	5751	3 23.6
	28	19 38 20.53	9.73	21 18 46.1	27.0	0.968 7177	5666	3 19.5
	29	19 38 10.80	10.08	21 19 13.1	27.7	0.968 1511	5580	3 15.4
	30	19 38 0.72	10.42	21 19 40.8	28.6	0.967 5931	5490	3 11.3
	31	19 37 50.30	10.76	21 20 9.4	29.4	0.967 0441	5401	3 7.2
Juni	1	19 37 39.54	11.10	21 20 38.8	30.1	0.966 5040	5308	3 3.1
	2	19 37 28.44	11.42	−21 21 8.9	30.8	0.965 9732	5214	2 59.0
	3	19 37 17.02	11.76	21 21 39.7	31.6	0.965 4518	5118	2 54.8
	4	19 37 5.26	12.08	21 22 11.3	32.3	0.964 9400	5019	2 50.7
	5	19 36 53.18	12.40	21 22 43.6	33.0	0.964 4381	4918	2 46.6
	6	19 36 40.78	12.70	21 23 16.6	33.6	0.963 9463	4815	2 42.4
	7	19 36 28.08	13.02	21 23 50.2	34.3	0.963 4648	4710	2 38.3
	8	19 36 15.06	13.31	−21 24 24.5	35.0	0.962 9938	4603	2 34.1
	9	19 36 1.75	13.61	21 24 59.5	35.6	0.962 5335	4496	2 30.0
	10	19 35 48.14	13.89	21 25 35.1	36.2	0.962 0839	4386	2 25.8
	11	19 35 34.25	14.17	21 26 11.3	36.8	0.961 6453	4272	2 21.7
	12	19 35 20.08	14.45	21 26 48.1	37.4	0.961 2181	4159	2 17.5
	13	19 35 5.63		−21 27 25.5		0.960 8022		2 13.3

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	″			h m
Juni 13	19 35 5.63	14.72	—21 27 25.5	37.9	0.960 8022	4044	2 13.3
14	19 34 50.91	14.98	21 28 3.4	38.5	0.960 3978	3925	2 9.2
15	19 34 35.93	15.22	21 28 41.9	38.9	0.960 0053	3804	2 5.0
16	19 34 20.71	15.48	21 29 20.8	39.5	0.959 6249	3683	2 0.8
17	19 34 5.23	15.72	21 30 0.3	39.9	0.959 2566	3559	1 56.6
18	19 33 49.51	15.94	21 30 40.2	40.4	0.958 9007	3434	1 52.4
19	19 33 33.57	16.16	—21 31 20.6	40.8	0.958 5573	3308	1 48.2
20	19 33 17.41	16.37	21 32 1.4	41.3	0.958 2265	3181	1 44.0
21	19 33 1.04	16.58	21 32 42.7	41.5	0.957 9084	3052	1 39.8
22	19 32 44.46	16.77	21 33 24.2	41.9	0.957 6032	2922	1 35.6
23	19 32 27.69	16.96	21 34 6.1	42.3	0.957 3110	2791	1 31.4
24	19 32 10.73	17.14	21 34 48.4	42.5	0.957 0319	2659	1 27.2
25	19 31 53.59	17.31	—21 35 30.9	42.9	0.956 7660	2525	1 23.0
26	19 31 36.28	17.47	21 36 13.8	43.1	0.956 5135	2391	1 18.7
27	19 31 18.81	17.62	21 36 56.9	43.3	0.956 2744	2257	1 14.5
28	19 31 1.19	17.77	21 37 40.2	43.6	0.956 0487	2120	1 10.3
29	19 30 43.42	17.90	21 38 23.8	43.7	0.955 8367	1984	1 6.1
30	19 30 25.52	18.03	21 39 7.5	43.9	0.955 6383	1847	1 1.8
Juli 1	19 30 7.49	18.15	—21 39 51.4	44.0	0.955 4536	1709	0 57.6
2	19 29 49.34	18.26	21 40 35.4	44.2	0.955 2827	1569	0 53.4
3	19 29 31.08	18.36	21 41 19.6	44.2	0.954 1258	1430	0 49.2
4	19 29 12.72	18.46	21 42 3.8	44.4	0.954 9828	1289	0 44.9
5	19 28 54.26	18.54	21 42 48.2	44.4	0.954 8539	1148	0 40.7
6	19 28 35.72	18.62	21 43 32.6	44.5	0.954 7391	1006	0 36.4
7	19 28 17.10	18.68	—21 44 17.1	44.5	0.954 6385	864	0 32.2
8	19 27 58.42	18.74	21 45 1.6	44.5	0.954 5521	721	0 28.0
9	19 27 39.68	18.79	21 45 46.1	44.6	0.954 4800	578	0 23.7
10	19 27 20.89	18.83	21 46 30.7	44.4	0.954 4222	433	0 19.5
11	19 27 2.06	18.85	21 47 15.1	44.4	0.954 3789	290	0 15.2
12	19 26 43.21	18.87	21 47 59.5	44.3	0.954 3499	146	0 11.0
13	19 26 24.34	18.88	—21 48 43.8	44.2	0.954 3353	0	0 6.7
14	19 26 5.46	18.88	21 49 28.0	44.0	0.954 3353	144	0 2.5 / 23 58.2
15	19 25 46.58	18.87	21 50 12.0	43.9	0.954 3497	289	23 54.0
16	19 25 27.71	18.84	21 50 55.9	43.8	0.954 3786	434	23 49.8
17	19 25 8.87	18.81	21 51 39.7	43.6	0.954 4220	578	23 45.5
18	19 24 50.06	18.77	21 52 23.3	43.4	0.954 4798	723	23 41.3
19	19 24 31.29	18.72	—21 53 6.7	43.1	0.954 5521	866	23 37.0
20	19 24 12.57	18.65	21 53 49.8	42.9	0.954 6387	1008	23 32.8
21	19 23 53.92	18.58	21 54 32.7	42.6	0.954 7395	1151	23 28.5
22	19 23 35.34	18.50	21 55 15.3	42.3	0.954 8546	1293	23 24.3
23	19 23 16.84	18.41	21 55 57.6	42.1	0.954 9839	1433	23 20.1
24	19 22 58.43		—21 56 39.7		0.955 1272		23 15.8

Tag	0ʰ Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931	h m s	s	° ′ ″	″			h m
Juli 24	19 22 58.43	18.30	−21 56 39.7	41.7	0.955 1272	1574	23 15.8
25	19 22 40.13	18.19	21 57 21.4	41.3	0.955 2846	1713	23 11.6
26	19 22 21.94	18.09	21 58 2.7	41.1	0.955 4559	1850	23 7.4
27	19 22 3.85	17.95	21 58 43.8	40.7	0.955 6409	1988	23 3.1
28	19 21 45.90	17.81	21 59 24.5	40.3	0.955 8397	2124	22 58.9
29	19 21 28.09	17.68	22 0 4.8	39.8	0.956 0521	2261	22 54.7
30	19 21 10.41	17.53	−22 0 44.6	39.5	0.956 2782	2395	22 50.5
31	19 20 52.88	17.36	22 1 24.1	39.0	0.956 5177	2529	22 46.2
Aug. 1	19 20 35.52	17.19	22 2 3.1	38.6	0.956 7706	2663	22 42.0
2	19 20 18.33	17.01	22 2 41.7	38.1	0.957 0369	2793	22 37.8
3	19 20 1.32	16.83	22 3 19.8	37.7	0.957 3162	2924	22 33.6
4	19 19 44.49	16.64	22 3 57.5	37.2	0.957 6086	3054	22 29.4
5	19 19 27.85	16.43	−22 4 34.7	36.7	0.957 9140	3181	22 25.2
6	19 19 11.42	16.23	22 5 11.4	36.2	0.958 2321	3309	22 21.0
7	19 18 55.19	16.00	22 5 47.6	35.7	0.958 5630	3435	22 16.8
8	19 18 39.19	15.78	22 6 23.3	35.1	0.958 9065	3559	22 12.6
9	19 18 23.41	15.54	22 6 58.4	34.7	0.959 2624	3683	22 8.4
10	19 18 7.87	15.29	22 7 33.1	34.1	0.959 6307	3804	22 4.2
11	19 17 52.58	15.04	−22 8 7.2	33.5	0.960 0111	3925	22 0.1
12	19 17 37.54	14.79	22 8 40.7	33.0	0.960 4036	4043	21 55.9
13	19 17 22.75	14.51	22 9 13.7	32.4	0.960 8079	4160	21 51.7
14	19 17 8.24	14.24	22 9 46.1	31.8	0.961 2239	4275	21 47.5
15	19 16 54.00	13.96	22 10 17.9	31.2	0.961 6514	4388	21 43.4
16	19 16 40.04	13.67	22 10 49.1	30.6	0.962 0902	4498	21 39.2
17	19 16 26.37	13.37	−22 11 19.7	30.0	0.962 5400	4608	21 35.1
18	19 16 13.00	13.06	22 11 49.7	29.3	0.963 0008	4714	21 30.9
19	19 15 59.94	12.76	22 12 19.0	28.8	0.963 4722	4820	21 26.8
20	19 15 47.18	12.43	22 12 47.8	28.0	0.963 9542	4921	21 22.6
21	19 15 34.75	12.11	22 13 15.8	27.4	0.964 4463	5023	21 18.5
22	19 15 22.64	11.78	22 13 43.2	26.8	0.964 9486	5120	21 14.3
23	19 15 10.86	11.46	−22 14 10.0	26.2	0.965 4606	5217	21 10.2
24	19 14 59.40	11.11	22 14 36.2	25.4	0.965 9823	5311	21 6.1
25	19 14 48.29	10.77	22 15 1.6	24.8	0.966 5134	5403	21 2.0
26	19 14 37.52	10.43	22 15 26.4	24.1	0.967 0537	5493	20 57.9
27	19 14 27.09	10.07	22 15 50.5	23.4	0.967 6030	5581	20 53.8
28	19 14 17.02	9.72	22 16 13.9	22.8	0.968 1611	5667	20 49.7
29	19 14 7.30	9.36	−22 16 36.7	22.0	0.968 7278	5752	20 45.6
30	19 13 57.94	8.99	22 16 58.7	21.4	0.969 3030	5834	20 41.5
31	19 13 48.95	8.62	22 17 20.1	20.6	0.969 8864	5912	20 37.4
Sept. 1	19 13 40.33	8.25	22 17 40.7	20.0	0.970 4776	5991	20 33.4
2	19 13 32.08	7.87	22 18 0.7	19.2	0.971 0767	6065	20 29.3
3	19 13 24.21		−22 18 19.9		0.971 6832		20 25.3

Tag	0ʰ Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931	h m s	s	° ′ ″	″			h m
Sept. 3	19 13 24.21	7.48	−22 18 19.9	18.6	0.971 6832	6140	20 25.3
4	19 13 16.73	7.10	22 18 38.5	17.9	0.972 2972	6210	20 21.2
5	19 13 9.63	6.71	22 18 56.4	17.2	0.972 9182	6280	20 17.2
6	19 13 2.92	6.32	22 19 13.6	16.4	0.973 5462	6346	20 13.1
7	19 12 56.60	5.92	22 19 30.0	15.8	0.974 1808	6412	20 9.1
8	19 12 50.68	5.52	22 19 45.8	15.0	0.974 8220	6474	20 5.1
9	19 12 45.16	5.12	−22 20 0.8	14.3	0.975 4694	6534	20 1.1
10	19 12 40.04	4.71	22 20 15.1	13.6	0.976 1228	6592	19 57.1
11	19 12 35.33	4.30	22 20 28.7	12.8	0.976 7820	6647	19 53.1
12	19 12 31.03	3.88	22 20 41.5	12.1	0.977 4467	6700	19 49.1
13	19 12 27.15	3.47	22 20 53.6	11.4	0.978 1167	6750	19 45.1
14	19 12 23.68	3.05	22 21 5.0	10.6	0.978 7917	6798	19 41.1
15	19 12 20.63	2.63	−22 21 15.6	9.9	0.979 4715	6843	19 37.1
16	19 12 18.00	2.21	22 21 25.5	9.2	0.980 1558	6886	19 33.1
17	19 12 15.79	1.79	22 21 34.7	8.4	0.980 8444	6927	19 29.2
18	19 12 14.00	1.37	22 21 43.1	7.7	0.981 5371	6964	19 25.2
19	19 12 12.63	0.95	22 21 50.8	6.8	0.982 2335	7000	19 21.3
20	19 12 11.68	0.52	22 21 57.6	6.1	0.982 9335	7034	19 17.3
21	19 12 11.16	0.09	−22 22 3.7	5.4	0.983 6369	7064	19 13.4
22	19 12 11.07	0.33	22 22 9.1	4.6	0.984 3433	7093	19 9.5
23	19 12 11.40	0.75	22 22 13.7	3.9	0.985 0526	7119	19 5.5
24	19 12 12.15	1.17	22 22 17.6	3.2	0.985 7645	7144	19 1.6
25	19 12 13.32	1.60	22 22 20.8	2.4	0.986 4789	7166	18 57.7
26	19 12 14.92	2.03	22 22 23.2	1.6	0.987 1955	7185	18 53.8
27	19 12 16.95	2.45	−22 22 24.8	0.9	0.987 9140	7204	18 49.9
28	19 12 19.40	2.87	22 22 25.7	0.2	0.988 6344	7219	18 46.0
29	19 12 22.27	3.30	22 22 25.9	0.6	0.989 3563	7233	18 42.2
30	19 12 25.57	3.72	22 22 25.3	1.4	0.990 0796	7245	18 38.3
Okt. 1	19 12 29.29	4.14	22 22 23.9	2.1	0.990 8041	7254	18 34.4
2	19 12 33.43	4.57	22 22 21.8	2.9	0.991 5295	7263	18 30.6
3	19 12 38.00	4.99	−22 22 18.9	3.6	0.992 2558	7268	18 26.7
4	19 12 42.99	5.41	22 22 15.3	4.4	0.992 9826	7272	18 22.9
5	19 12 48.40	5.83	22 22 10.9	5.2	0.993 7098	7274	18 19.0
6	19 12 54.23	6.25	22 22 5.7	5.9	0.994 4372	7272	18 15.2
7	19 13 0.48	6.67	22 21 59.8	6.6	0.995 1644	7271	18 11.4
8	19 13 7.15	7.09	22 21 53.2	7.4	0.995 8915	7265	18 7.6
9	19 13 14.24	7.50	−22 21 45.8	8.2	0.996 6180	7258	18 3.8
10	19 13 21.74	7.92	22 21 37.6	9.0	0.997 3438	7249	18 0.0
11	19 13 29.66	8.34	22 21 28.6	9.7	0.998 0687	7238	17 56.2
12	19 13 38.00	8.75	22 21 18.9	10.5	0.998 7925	7224	17 52.4
13	19 13 46.75	9.16	22 21 8.4	11.2	0.999 5149	7208	17 48.6
14	19 13 55.91		−22 20 57.2		1.000 2357		17 44.8

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	″			h m
Okt. 14	19 13 55.91	9.56	—22 20 57.2	12.1	1.000 2357	7189	17 44.8
15	19 14 5.47	9.98	22 20 45.1	12.8	1.000 9546	7171	17 41.0
16	19 14 15.45	10.38	22 20 32.3	13.6	1.001 6717	7149	17 37.3
17	19 14 25.83	10.78	22 20 18.7	14.4	1.002 3866	7125	17 33.5
18	19 14 36.61	11.17	22 20 4.3	15.1	1.003 0991	7099	17 29.8
19	19 14 47.78	11.56	22 19 49.2	15.9	1.003 8090	7073	17 26.1
20	19 14 59.34	11.96	—22 19 33.3	16.7	1.004 5163	7042	17 22.3
21	19 15 11.30	12.35	22 19 16.6	17.5	1.005 2205	7012	17 18.6
22	19 15 23.65	12.73	22 18 59.1	18.2	1.005 9217	6979	17 14.9
23	19 15 36.38	13.11	22 18 40.9	19.0	1.006 6196	6945	17 11.1
24	19 15 49.49	13.49	22 18 21.9	19.8	1.007 3141	6909	17 7.4
25	19 16 2.98	13.87	22 18 2.1	20.5	1.008 0050	6871	17 3.7
26	19 16 16.85	14.23	—22 17 41.6	21.3	1.008 6921	6833	17 0.0
27	19 16 31.08	14.61	22 17 20.3	22.1	1.009 3754	6792	16 56.3
28	19 16 45.69	14.97	22 16 58.2	22.8	1.010 0546	6751	16 52.7
29	19 17 0.66	15.33	22 16 35.4	23.6	1.010 7297	6707	16 49.0
30	19 17 15.99	15.69	22 16 11.8	24.4	1.011 4004	6662	16 45.3
31	19 17 31.68	16.05	22 15 47.4	25.2	1.012 0666	6616	16 41.6
Nov. 1	19 17 47.73	16.40	—22 15 22.2	25.9	1.012 7282	6567	16 38.0
2	19 18 4.13	16.75	22 14 56.3	26.7	1.013 3849	6518	16 34.3
3	19 18 20.88	17.09	22 14 29.6	27.4	1.014 0367	6467	16 30.7
4	19 18 37.97	17.44	22 14 2.2	28.2	1.014 6834	6415	16 27.0
5	19 18 55.41	17.78	22 13 34.0	29.0	1.015 3249	6361	16 23.4
6	19 19 13.19	18.12	22 13 5.0	29.8	1.015 9610	6306	16 19.7
7	19 19 31.31	18.46	—22 12 35.2	30.6	1.016 5916	6248	16 16.1
8	19 19 49.77	18.78	22 12 4.6	31.4	1.017 2164	6189	16 12.5
9	19 20 8.55	19.11	22 11 33.2	32.1	1.017 8353	6129	16 8.9
10	19 20 27.66	19.44	22 11 1.1	32.9	1.018 4482	6067	16 5.3
11	19 20 47.10	19.74	22 10 28.2	33.6	1.019 0549	6004	16 1.7
12	19 21 6.84	20.06	22 9 54.6	34.4	1.019 6553	5940	15 58.1
13	19 21 26.90	20.36	—22 9 20.2	35.2	1.020 2493	5873	15 54.5
14	19 21 47.26	20.67	22 8 45.0	36.0	1.020 8366	5807	15 50.9
15	19 22 7.93	20.96	22 8 9.0	36.8	1.021 4173	5737	15 47.3
16	19 22 28.89	21.25	22 7 32.2	37.6	1.021 9910	5668	15 43.7
17	19 22 50.14	21.55	22 6 54.6	38.2	1.022 5578	5597	15 40.1
18	19 23 11.69	21.83	22 6 16.4	39.0	1.023 1175	5526	15 36.6
19	19 23 33.52	22.11	—22 5 37.4	39.8	1.023 6701	5453	15 33.0
20	19 23 55.63	22.38	22 4 57.6	40.6	1.024 2154	5379	15 29.4
21	19 24 18.01	22.65	22 4 17.0	41.3	1.024 7533	5305	15 25.9
22	19 24 40.66	22.91	22 3 35.7	42.0	1.025 2838	5229	15 22.3
23	19 25 3.57	23.18	22 2 53.7	42.8	1.025 8067	5153	15 18.8
24	19 25 26.75		—22 2 10.9		1.026 3220		15 15.2

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	″			h m
Nov. 24	19 25 26.75	23.43	−22 2 10.9	43.5	1.026 3220	5076	15 15.2
25	19 25 50.18	23.68	22 1 27.4	44.2	1.026 8296	4996	15 11.7
26	19 26 13.86	23.92	22 0 43.2	45.0	1.027 3292	4918	15 8.1
27	19 26 37.78	24.17	21 59 58.2	45.7	1.027 8210	4837	15 4.6
28	19 27 1.95	24.42	21 59 12.5	46.4	1.028 3047	4756	15 1.1
29	19 27 26.37	24.64	21 58 26.1	47.2	1.028 7803	4674	14 57.6
30	19 27 51.01	24.88	−21 57 38.9	48.0	1.029 2477	4591	14 54.0
Dez. 1	19 28 15.89	25.10	21 56 50.9	48.6	1.029 7068	4509	14 50.5
2	19 28 40.99	25.33	21 56 2.3	49.4	1.030 1577	4423	14 47.0
3	19 29 6.32	25.54	21 55 12.9	50.0	1.030 6000	4337	14 43.5
4	19 29 31.86	25.75	21 54 22.9	50.8	1.031 0337	4252	14 40.0
5	19 29 57.61	25.96	21 53 32.1	51.5	1.031 4589	4164	14 36.5
6	19 30 23.57	26.16	−21 52 40.6	52.2	1.031 8753	4076	14 33.0
7	19 30 49.73	26.37	21 51 48.4	52.9	1.032 2829	3986	14 29.5
8	19 31 16.10	26.55	21 50 55.5	53.6	1.032 6815	3896	14 26.0
9	19 31 42.65	26.75	21 50 1.9	54.4	1.033 0711	3805	14 22.5
10	19 32 9.40	26.92	21 49 7.5	55.0	1.033 4516	3713	14 19.0
11	19 32 36.32	27.10	21 48 12.5	55.6	1.033 8229	3621	14 15.5
12	19 33 3.42	27.28	−21 47 16.9	56.4	1.034 1850	3528	14 12.1
13	19 33 30.70	27.44	21 46 20.5	57.0	1.034 5378	3434	14 8.6
14	19 33 58.14	27.60	21 45 23.5	57.7	1.034 8812	3340	14 5.1
15	19 34 25.74	27.76	21 44 25.8	58.3	1.035 2152	3244	14 1.7
16	19 34 53.50	27.90	21 43 27.5	59.0	1.035 5396	3150	13 58.2
17	19 35 21.40	28.05	21 42 28.5	59.6	1.035 8546	3054	13 54.7
18	19 35 49.45	28.19	−21 41 28.9	60.3	1.036 1600	2957	13 51.2
19	19 36 17.64	28.33	21 40 28.6	60.8	1.036 4557	2861	13 47.8
20	19 36 45.97	28.45	21 39 27.8	61.5	1.036 7418	2764	13 44.3
21	19 37 14.42	28.58	21 38 26.3	62.1	1.037 0182	2666	13 40.9
22	19 37 43.00	28.71	21 37 24.2	62.7	1.037 2848	2569	13 37.4
23	19 38 11.71	28.81	21 36 21.5	63.3	1.037 5417	2472	13 33.9
24	19 38 40.52	28.93	−21 35 18.2	63.9	1.037 7889	2373	13 30.5
25	19 39 9.45	29.03	21 34 14.3	64.5	1.038 0262	2275	13 27.0
26	19 39 38.48	29.13	21 33 9.8	65.0	1.038 2537	2175	13 23.6
27	19 40 7.61	29.23	21 32 4.8	65.5	1.038 4712	2076	13 20.1
28	19 40 36.84	29.32	21 30 59.3	66.1	1.038 6788	1977	13 16.7
29	19 41 6.16	29.42	21 29 53.2	66.7	1.038 8765	1877	13 13.3
30	19 41 35.58	29.50	−21 28 46.5	67.2	1.039 0642	1776	13 9.8
31	19 42 5.08	29.57	21 27 39.3	67.7	1.039 2418	1675	13 6.4
32	19 42 34.65		−21 26 31.6		1.039 4093		13 2.9

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Jan. −1	0 43 14.36	7.85	+3 55 29.9	1 0.1	1.299 2490	1 4979	18 9.4
+3	0 43 22.21	10.88	3 56 30.0	1 19.3	1.300 7469	1 4927	17 53.8
7	0 43 33.09	13.87	3 57 49.3	1 38.1	1.302 2396	1 4802	17 38.3
11	0 43 46.96	16.82	3 59 27.4	1 56.7	1.303 7198	1 4611	17 22.8
15	0 44 3.78	19.73	4 1 24.1	2 14.9	1.305 1809	1 4352	17 7.4
19	0 44 23.51	22.55	4 3 39.0	2 32.6	1.306 6161	1 4020	16 52.0
23	0 44 46.06	25.27	+4 6 11.6	2 49.5	1.308 0181	1 3627	16 36.6
27	0 45 11.33	27.89	4 9 1.1	3 5.9	1.309 3808	1 3175	16 21.3
31	0 45 39.22	30.38	4 12 7.0	3 21.0	1.310 6983	1 2670	16 6.1
Febr. 4	0 46 9.60	32.76	4 15 28.0	3 35.6	1.311 9653	1 2119	15 50.9
8	0 46 42.36	35.03	4 19 3.6	3 49.6	1.313 1772	1 1516	15 35.7
12	0 47 17.39	37.17	4 22 53.2	4 2.6	1.314 3288	1 0867	15 20.5
16	0 47 54.56	39.18	+4 26 55.8	4 14.7	1.315 4155	1 0183	15 5.4
20	0 48 33.74	41.04	4 31 10.5	4 25.6	1.316 4338	9442	14 50.4
24	0 49 14.78	42.72	4 35 36.1	4 35.7	1.317 3780	8678	14 35.3
28	0 49 57.50	44.24	4 40 11.8	4 44.4	1.318 2458	7885	14 20.3
März 4	0 50 41.74	45.62	4 44 56.2	4 52.5	1.319 0343	7071	14 5.3
8	0 51 27.36	46.86	4 49 48.7	4 59.4	1.319 7414	6230	13 50.3
12	0 52 14.22	47.93	+4 54 48.1	5 5.4	1.320 3644	5371	13 35.4
16	0 53 2.15	48.84	4 59 53.5	5 10.2	1.320 9015	4487	13 20.5
20	0 53 50.99	49.58	5 5 3.7	5 14.0	1.321 3502	3594	13 5.6
24	0 54 40.57	50.14	5 10 17.7	5 16.7	1.321 7096	2688	12 50.7
28	0 55 30.71	50.53	5 15 34.4	5 18.1	1.321 9784	1778	12 35.8
April 1	0 56 21.24	50.77	5 20 52.5	5 18.7	1.322 1562	874	12 20.9
5	0 57 12.01	50.85	+5 26 11.2	5 18.3	1.322 2436	34	12 6.0
9	0 58 2.86	50.77	5 31 29.5	5 17.0	1.322 2402	940	11 51.1
13	0 58 53.63	50.54	5 36 46.5	5 14.6	1.322 1462	1847	11 36.2
17	0 59 44.17	50.12	5 42 1.1	5 11.1	1.321 9615	2744	11 21.3
21	1 0 34.29	49.53	5 47 12.2	5 6.6	1.321 6871	3628	11 6.4
25	1 1 23.82	48.79	5 52 18.8	5 1.0	1.321 3243	4493	10 51.5
29	1 2 12.61	47.92	+5 57 19.8	4 54.6	1.320 8750	5337	10 36.6
Mai 3	1 3 0.53	46.88	6 2 14.4	4 47.5	1.320 3413	6161	10 21.7
7	1 3 47.41	45.69	6 7 1.9	4 39.6	1.319 7252	6969	10 6.7
11	1 4 33.10	44.41	6 11 41.5	4 30.5	1.319 0283	7750	9 51.7
15	1 5 17.51	42.92	6 16 12.0	4 20.7	1.318 2533	8510	9 36.7
19	1 6 0.43	41.30	6 20 32.7	4 10.0	1.317 4023	9229	9 21.7
23	1 6 41.73	39.53	+6 24 42.7	3 58.5	1.316 4794	9916	9 6.7
27	1 7 21.26	37.67	6 28 41.2	3 46.3	1.315 4878	1 0562	8 51.6
31	1 7 58.93	35.68	6 32 27.5	3 33.6	1.314 4316	1 1171	8 36.5
Juni 4	1 8 34.61	33.57	6 36 1.1	3 20.2	1.313 3145	1 1741	8 21.4
8	1 9 8.18	31.34	6 39 21.3	3 6.0	1.312 1404	1 2270	8 6.2
12	1 9 39.52		+6 42 27.3		1.310 9134		7 51.0

Tag	0h Welt-Zeit Scheinbare Rektaszension		Scheinbare Deklination		log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Juni 12	1 9 39.52	29.02	+6 42 27.3	2 51.3	1.310 9134	1 2756	7 51.0
16	1 10 8.54	26.57	6 45 18.6	2 35.8	1.309 6378	1 3191	7 35.7
20	1 10 35.11	24.03	6 47 54.4	2 20.1	1.308 3187	1 3568	7 20.4
24	1 10 59.14	21.41	6 50 14.5	2 3.8	1.306 9619	1 3889	7 5.1
28	1 11 20.55	18.74	6 52 18.3	1 47.3	1.305 5730	1 4154	6 49.7
Juli 2	1 11 39.29	16.01	6 54 5.6	1 30.5	1.304 1576	1 4369	6 34.3
6	1 11 55.30	13.20	+6 55 36.1	1 13.2	1.302 7207	1 4528	6 18.8
10	1 12 8.50	10.35	6 56 49.3	0 55.7	1.301 2679	1 4622	6 3.3
14	1 12 18.85	7.44	6 57 45.0	0 38.1	1.299 8057	1 4650	5 47.8
18	1 12 26.29	4.53	6 58 23.1	0 20.2	1.298 3407	1 4612	5 32.2
22	1 12 30.82	1.61	6 58 43.3	0 2.6	1.296 8795	1 4500	5 16.5
26	1 12 32.43	1.29	6 58 45.9	0 15.0	1.295 4295	1 4330	5 0.8
30	1 12 31.14	4.17	+6 58 30.9	0 32.4	1.293 9965	1 4088	4 45.0
Aug. 3	1 12 26.97	7.02	6 57 58.5	0 49.5	1.292 5877	1 3787	4 29.2
7	1 12 19.95	9.84	6 57 9.0	1 6.5	1.291 2090	1 3416	4 13.4
11	1 12 10.11	12.62	6 56 2.5	1 23.2	1.289 8674	1 2972	3 57.5
15	1 11 57.49	15.30	6 54 39.3	1 39.4	1.288 5702	1 2455	3 41.6
19	1 11 42.19	17.87	6 52 59.9	1 54.7	1.287 3247	1 1871	3 25.6
23	1 11 24.32	20.33	+6 51 5.2	2 9.3	1.286 1376	1 1228	3 9.6
27	1 11 3.99	22.66	6 48 55.9	2 23.3	1.285 0148	1 0522	2 53.5
31	1 10 41.33	24.86	6 46 32.6	2 36.3	1.283 9626	9765	2 37.4
Sept. 4	1 10 16.47	26.92	6 43 56.3	2 48.5	1.282 9861	8945	2 21.3
8	1 9 49.55	28.81	6 41 7.8	2 59.9	1.282 0916	8070	2 5.1
12	1 9 20.74	30.51	6 38 7.9	3 9.7	1.281 2846	7139	1 48.9
16	1 8 50.23	32.00	+6 34 58.2	3 18.5	1.280 5707	6165	1 32.6
20	1 8 18.23	33.28	6 31 39.7	3 25.9	1.279 9542	5155	1 16.4
24	1 7 44.95	34.33	6 28 13.8	3 31.9	1.279 4387	4116	1 0.1
28	1 7 10.62	35.16	6 24 41.9	3 36.5	1.279 0271	3049	0 43.8
Okt. 2	1 6 35.46	35.79	6 21 5.4	3 40.0	1.278 7222	1961	0 27.5
6	1 5 59.67	36.15	6 17 25.4	3 41.9	1.278 5261	850	0 11.2
10	1 5 23.52	36.28	+6 13 43.5	3 42.1	1.278 4411	272	23 50.8
14	1 4 47.24	36.13	6 10 1.4	3 40.9	1.278 4683	1397	23 34.5
18	1 4 11.11	35.74	6 6 20.5	3 37.8	1.278 6080	2510	23 18.1
22	1 3 35.37	35.09	6 2 42.7	3 33.4	1.278 8590	3608	23 1.8
26	1 3 0.28	34.21	5 59 9.3	3 27.6	1.279 2198	4683	22 45.5
30	1 2 26.07	33.11	5 55 41.7	3 20.4	1.279 6881	5738	22 29.2
Nov. 3	1 1 52.96	31.79	+5 52 21.3	3 11.6	1.280 2619	6765	22 12.9
7	1 1 21.17	30.22	5 49 9.7	3 1.6	1.280 9384	7754	21 56.7
11	1 0 50.95	28.44	5 46 8.1	2 50.1	1.281 7138	8699	21 40.5
15	1 0 22.51	26.45	5 43 18.0	2 37.2	1.282 5837	9586	21 24.3
19	0 59 56.06	24.28	5 40 40.8	2 23.4	1.283 5423	1 0416	21 8.1
23	0 59 31.78		+5 38 17.4		1.284 5839		20 52.0

Tag	0h Welt-Zeit						Obere Kulmination in Greenwich
	Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931	h m s	s	° ′ ″	′ ″			h m
Nov. 23	0 59 31.78		+5 38 17.4		1.284 5839		20 52.0
		21.95		2 8.5		1 1187	
27	0 59 9.83		5 36 8.9		1.285 7026		20 35.9
		19.49		1 52.9		1 1890	
Dez. 1	0 58 50.34		5 34 16.0		1.286 8916		20 19.9
		16.87		1 36.4		1 2538	
5	0 58 33.47		5 32 39.6		1.288 1454		20 3.9
		14.13		1 19.0		1 3114	
9	0 58 19.34		5 31 20.6		1.289 4568		19 47.9
		11.27		1 0.9		1 3616	
13	0 58 8.07		5 30 19.7		1.290 8184		19 32.0
		8.33		0 42.4		1 4037	
17	0 57 59.74		+5 29 37.3		1.292 2221		19 16.2
		5.33		0 23.4		1 4380	
21	0 57 54.41		5 29 13.9		1.293 6601		19 0.4
		2.29		0 4.4		1 4644	
25	0 57 52.12		5 29 9.5		1.295 1245		18 44.6
		0.78		0 14.7		1 4837	
29	0 57 52.90		5 29 24.2		1.296 6082		18 28.9
		3.86		0 34.1		1 4959	
33	0 57 56.76		+5 29 58.3		1.298 1041		18 13.3

Neptun 1931

Tag	0h Welt-Zeit: Scheinbare Rektaszension		0h Welt-Zeit: Scheinbare Deklination		0h Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Jan. −1	10 30 54.55	11.37	+10 5 54.5	1 14.5	1.471 6621	8437	3 59.4
+3	10 30 43.18	13.16	10 7 9.0	1 24.7	1.470 8184	8027	3 43.5
7	10 30 30.02	14.86	10 8 33.7	1 34.3	1.470 0157	7576	3 27.5
11	10 30 15.16	16.48	10 10 8.0	1 43.5	1.469 2581	7081	3 11.6
15	10 29 58.68	17.99	10 11 51.5	1 51.9	1.468 5500	6542	2 55.6
19	10 29 40.69	19.38	10 13 43.4	1 59.6	1.467 8958	5968	2 39.5
23	10 29 21.31	20.64	+10 15 43.0	2 6.6	1.467 2990	5358	2 23.5
27	10 29 0.67	21.77	10 17 49.6	2 12.4	1.466 7632	4716	2 7.4
31	10 28 38.90	22.72	10 20 2.0	2 17.5	1.466 2916	4054	1 51.3
Febr. 4	10 28 16.18	23.55	10 22 19.5	2 21.8	1.465 8862	3374	1 35.2
8	10 27 52.63	24.24	10 24 41.3	2 25.2	1.465 5488	2670	1 19.1
12	10 27 28.39	24.77	10 27 6.5	2 27.7	1.465 2818	1950	1 3.0
16	10 27 3.62	25.13	+10 29 34.2	2 29.1	1.465 0868	1219	0 46.9
20	10 26 38.49	25.31	10 32 3.3	2 29.6	1.464 9649	478	0 30.7
24	10 26 13.18	25.33	10 34 32.9	2 29.0	1.464 9171	255	0 14.5
28	10 25 47.85	25.17	10 37 1.9	2 27.5	1.464 9426	984	23 54.4
März 4	10 25 22.68	24.89	10 39 29.4	2 25.2	1.465 0410	1703	23 38.2
8	10 24 57.79	24.44	10 41 54.6	2 21.8	1.465 2113	2417	23 22.1
12	10 24 33.35	23.82	+10 44 16.4	2 17.9	1.465 4530	3111	23 6.0
16	10 24 9.53	23.07	10 46 34.3	2 12.9	1.465 7641	3791	22 49.8
20	10 23 46.46	22.15	10 48 47.2	2 7.2	1.466 1432	4446	22 33.7
24	10 23 24.31	21.09	10 50 54.4	2 0.5	1.466 5878	5070	22 17.6
28	10 23 3.22	19.91	10 52 54.9	1 53.1	1.467 0948	5664	22 1.5
April 1	10 22 43.31	18.62	10 54 48.0	1 45.3	1.467 6612	6220	21 45.5
5	10 22 24.69	17.21	+10 56 33.3	1 36.8	1.468 2832	6746	21 29.5
9	10 22 7.48	15.71	10 58 10.1	1 27.8	1.468 9578	7234	21 13.5
13	10 21 51.77	14.09	10 59 37.9	1 18.4	1.469 6812	7689	20 57.5
17	10 21 37.68	12.41	11 0 56.3	1 8.3	1.470 4501	8098	20 41.5
21	10 21 25.27	10.62	11 2 4.6	0 57.9	1.471 2599	8458	20 25.6
25	10 21 14.65	8.79	11 3 2.5	0 47.1	1.472 1057	8777	20 9.7
29	10 21 5.86	6.92	+11 3 49.6	0 36.1	1.472 9834	9044	19 53.8
Mai 3	10 20 58.94	5.00	11 4 25.7	0 25.2	1.473 8878	9274	19 38.0
7	10 20 53.94	3.05	11 4 50.9	0 14.0	1.474 8152	9461	19 22.2
11	10 20 50.89	1.09	11 5 4.9	0 2.6	1.475 7613	9599	19 6.4
15	10 20 49.80	0.92	11 5 7.5	0 8.8	1.476 7212	9697	18 50.7
19	10 20 50.72	2.91	11 4 58.7	0 20.4	1.477 6909	9740	18 35.0
23	10 20 53.63	4.91	+11 4 38.3	0 31.6	1.478 6649	9739	18 19.3
27	10 20 58.54	6.87	11 4 6.7	0 42.9	1.479 6388	9694	18 3.7
31	10 21 5.41	8.80	11 3 23.8	0 53.8	1.480 6082	9610	17 48.1
Juni 4	10 21 14.21	10.72	11 2 30.0	1 4.7	1.481 5692	9486	17 32.5
8	10 21 24.93	12.60	11 1 25.3	1 15.3	1.482 5178	9325	17 16.9
12	10 21 37.53		+11 0 10.0		1.483 4503		17 1.4

Neptun 1931

Tag	0ʰ Welt-Zeit: Scheinbare Rektaszension		0ʰ Welt-Zeit: Scheinbare Deklination		0ʰ Welt-Zeit: log Δ		Obere Kulmination in Greenwich
1931	h m s	s	° ′ ″	′ ″			h m
Juni 12	10 21 37.53	14.43	+11 0 10.0	1 25.7	1.483 4503	9120	17 1.4
16	10 21 51.96	16.22	10 58 44.3	1 35.9	1.484 3623	8874	16 46.0
20	10 22 8.18	17.93	10 57 8.4	1 45.6	1.485 2497	8594	16 30.5
24	10 22 26.11	19.58	10 55 22.8	1 55.0	1.486 1091	8275	16 15.1
28	10 22 45.69	21.17	10 53 27.8	2 3.8	1.486 9366	7929	15 59.7
Juli 2	10 23 6.86	22.66	10 51 24.0	2 12.3	1.487 7295	7552	15 44.3
6	10 23 29.52	24.08	+10 49 11.7	2 20.4	1.488 4847	7148	15 29.0
10	10 23 53.60	25.42	10 46 51.3	2 27.9	1.489 1995	6717	15 13.6
14	10 24 19.02	26.69	10 44 23.4	2 35.2	1.489 8712	6250	14 58.3
18	10 24 45.71	27.86	10 41 48.2	2 41.6	1.490 4962	5760	14 43.0
22	10 25 13.57	28.91	10 39 6.6	2 47.7	1.491 0722	5251	14 27.8
26	10 25 42.48	29.85	10 36 18.9	2 53.0	1.491 5973	4728	14 12.5
30	10 26 12.33	30.71	+10 33 25.9	2 57.9	1.492 0701	4182	13 57.3
Aug. 3	10 26 43.04	31.47	10 30 28.0	3 2.1	1.492 4883	3623	13 42.1
7	10 27 14.51	32.14	10 27 25.9	3 5.7	1.492 8506	3045	13 26.9
11	10 27 46.65	32.67	10 24 20.2	3 8.9	1.493 1551	2455	13 11.7
15	10 28 19.32	33.11	10 21 11.3	3 11.2	1.493 4006	1857	12 56.5
19	10 28 52.43	33.41	10 18 0.1	3 12.9	1.493 5863	1245	12 41.3
23	10 29 25.84	33.60	+10 14 47.2	3 13.9	1.493 7108	632	12 26.2
27	10 29 59.44	33.69	10 11 33.3	3 14.3	1.493 7740	18	12 11.0
31	10 30 33.13	33.66	10 8 19.0	3 13.9	1.493 7758	598	11 55.8
Sept. 4	10 31 6.79	33.53	10 5 5.1	3 13.1	1.493 7160	1215	11 40.6
8	10 31 40.32	33.27	10 1 52.0	3 11.4	1.493 5945	1831	11 25.5
12	10 32 13.59	32.90	9 58 40.6	3 9.1	1.493 4114	2448	11 10.3
16	10 32 46.49	32.39	+ 9 55 31.5	3 6.0	1.493 1666	3050	10 55.1
20	10 33 18.88	31.77	9 52 25.5	3 2.1	1.492 8616	3643	10 39.9
24	10 33 50.65	31.05	9 49 23.4	2 57.8	1.492 4973	4223	10 24.7
28	10 34 21.70	30.22	9 46 25.6	2 52.7	1.492 0750	4786	10 9.5
Okt. 2	10 34 51.92	29.29	9 43 32.9	2 47.1	1.491 5964	5336	9 54.3
6	10 35 21.21	28.23	9 40 45.8	2 40.6	1.491 0628	5869	9 39.1
10	10 35 49.44	27.08	+ 9 38 5.2	2 33.6	1.490 4759	6384	9 23.8
14	10 36 16.52	25.80	9 35 31.6	2 25.9	1.489 8375	6869	9 8.5
18	10 36 42.32	24.43	9 33 5.7	2 17.6	1.489 1506	7327	8 53.2
22	10 37 6.75	22.97	9 30 48.1	2 8.8	1.488 4179	7750	8 37.9
26	10 37 29.72	21.43	9 28 39.3	1 59.4	1.487 6429	8149	8 22.5
30	10 37 51.15	19.82	9 26 39.9	1 49.7	1.486 8280	8514	8 7.1
Nov. 3	10 38 10.97	18.10	+ 9 24 50.2	1 39.3	1.485 9766	8847	7 51.7
7	10 38 29.07	16.31	9 23 10.9	1 28.6	1.485 0919	9140	7 36.3
11	10 38 45.38	14.44	9 21 42.3	1 17.3	1.484 1779	9392	7 20.9
15	10 38 59.82	12.54	9 20 25.0	1 5.7	1.483 2387	9598	7 5.4
19	10 39 12.36	10.57	9 19 19.3	0 53.9	1.482 2789	9760	6 49.8
23	10 39 22.93		+ 9 18 25.4		1.481 3029		6 34.3

Neptun 1931

Tag		0ʰ Welt-Zeit						Obere Kulmination in Greenwich
		Scheinbare Rektaszension		Scheinbare Deklination		log Δ		
1931		h m s	s	° ′ ″	′ ″			h m
Nov.	23	10 39 22.93	8.57	+9 18 25.4	0 42.0	1.481 3029	9879	6 34.3
	27	10 39 31.50	6.55	9 17 43.4	0 29.8	1.480 3150	9951	6 18.7
Dez.	1	10 39 38.05	4.49	9 17 13.6	0 17.4	1.479 3199	9977	6 3.1
	5	10 39 42.54	2.41	9 16 56.2	0 5.0	1.478 3222	9959	5 47.4
	9	10 39 44.95	0.33	9 16 51.2	0 7.3	1.477 3263	9883	5 31.7
	13	10 39 45.28	1.75	9 16 58.5	0 19.7	1.476 3380	9757	5 16.0
	17	10 39 43.53	3.79	+9 17 18.2	0 31.8	1.475 3623	9575	5 0.3
	21	10 39 39.74	5.80	9 17 50.0	0 43.7	1.474 4048	9350	4 44.5
	25	10 39 33.94	7.78	9 18 33.7	0 55.1	1.473 4698	9077	4 28.6
	29	10 39 26.16	9.69	9 19 28.8	1 6.5	1.472 5621	8757	4 12.7
	33	10 39 16.47		+9 20 35.3		1.471 6864		3 56.9

Mittleres Äquinoktium 1925.0

MERKUR 1931

0h Welt-Zeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite	0h Welt-Zeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite
1931		°	°	°	1931		°	°	°
Jan. −3	9.4969	47.80	0.00	+0.05	Juli 1	9.4967	104.33	+0.20	+5.88
+2	9.4879	78.95	+0.18	+3.67	6	9.5230	133.32	+0.03	+6.98
7	9.5006	110.01	+0.17	+6.22	11	9.5569	158.51	−0.14	+6.54
12	9.5291	138.35	−0.01	+7.00	16	9.5903	179.95	−0.21	+5.17
17	9.5634	162.80	−0.16	+6.33	21	9.6191	198.42	−0.18	+3.41
22	9.5961	183.62	−0.21	+4.86	26	9.6415	214.76	−0.09	+1.54
27	9.6238	201.62	−0.17	+3.06	31	9.6573	229.70	+0.02	−0.28
Febr. 1	9.6450	217.65	−0.07	+1.19	Aug. 5	9.6664	243.80	+0.12	−1.98
6	9.6595	232.39	+0.04	−0.61	10	9.6690	257.56	+0.19	−3.53
11	9.6674	246.40	+0.13	−2.29	15	9.6651	271.40	+0.21	−4.87
16	9.6688	260.13	+0.19	−3.80	20	9.6546	285.76	+0.19	−5.97
21	9.6636	274.04	+0.21	−5.10	25	9.6374	301.12	+0.11	−6.72
26	9.6518	288.55	+0.18	−6.14	30	9.6135	318.05	0.00	−7.00
März 3	9.6334	304.16	+0.09	−6.82	Sept. 4	9.5836	337.21	−0.14	−6.59
8	9.6084	321.45	−0.03	−6.99	9	9.5496	359.37	−0.21	−5.22
13	9.5775	341.12	−0.16	−6.42	14	9.5165	25.14	−0.15	−2.67
18	9.5431	3.92	−0.21	−4.83	19	9.4932	54.46	+0.05	+0.86
23	9.5111	30.40	−0.12	−2.06	24	9.4889	85.84	+0.21	+4.36
28	9.4907	60.27	+0.09	+1.56	29	9.5058	116.50	+0.14	+6.55
April 2	9.4906	91.74	+0.21	+4.90	Okt. 4	9.5364	144.03	−0.05	+6.96
7	9.5108	121.96	+0.11	+6.75	9	9.5709	167.63	−0.19	+6.06
12	9.5428	148.76	−0.08	+6.87	14	9.6027	187.76	−0.21	+4.48
17	9.5772	171.65	−0.20	+5.80	19	9.6290	205.27	−0.15	+2.65
22	9.6081	191.22	−0.20	+4.15	24	9.6487	220.96	−0.05	+0.79
27	9.6332	208.33	−0.13	+2.30	29	9.6618	235.50	+0.06	−0.99
Mai 2	9.6517	223.76	−0.03	+0.45	Nov. 3	9.6683	249.40	+0.15	−2.63
7	9.6635	238.14	+0.08	−1.31	8	9.6681	263.14	+0.20	−4.10
12	9.6687	251.98	+0.16	−2.92	13	9.6616	277.14	+0.21	−5.35
17	9.6674	265.74	+0.21	−4.35	18	9.6484	291.85	+0.17	−6.32
22	9.6596	279.83	+0.21	−5.56	23	9.6285	307.77	+0.07	−6.91
27	9.6452	294.73	+0.15	−6.47	28	9.6021	325.52	−0.06	−6.93
Juni 1	9.6240	310.94	+0.05	−6.96	Dez. 3	9.5701	345.80	−0.18	−6.17
6	9.5964	329.11	−0.08	−6.86	8	9.5357	9.37	−0.21	−4.33
11	9.5637	349.96	−0.19	−5.91	13	9.5053	36.66	−0.08	−1.31
16	9.5294	14.22	−0.20	−3.85	18	9.4888	67.09	+0.14	+2.37
21	9.5008	42.18	−0.04	−0.64	23	9.4935	98.54	+0.21	+5.46
26	9.4880	73.01	+0.17	+3.04	28	9.5172	128.14	+0.07	+6.91
Juli 1	9.4967	104.33	+0.20	+5.88	33	9.5504	154.08	−0.12	+6.71

$\Omega = 47^\circ.442$ $i = 7^\circ.003$ $m = \frac{1}{6\,000\,000}$

Mittleres Äquinoktium 1925.0

0h Welt-Zeit	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite	log r	Helioz. Länge	Red. a. d. Bahn	Helioz. Breite
	VENUS 1931				MARS 1931			
1931		°	in 0°.001	°		°	in 0°.001	°
Jan. −8	9.85659	108.480	+45	+1.825	0.20922	110.560	+13	+1.627
+2	9.85640	124.708	+50	+2.552	0.21155	115.158	11	1.692
12	9.85643	140.960	+38	+3.076	0.21365	119.711	9	1.746
22	9.85670	157.212	+15	+3.354	0.21553	124.222	7	1.789
Febr. 1	9.85717	173.440	−13	+3.365	0.21716	128.696	5	1.821
11	9.85781	189.623	−37	+3.110	0.21854	133.140	+ 3	+1.840
21	9.85857	205.742	−49	+2.610	0.21968	137.558	+ 1	1.849
März 3	9.85938	221.787	−47	+1.909	0.22056	141.955	− 1	1.847
13	9.86019	237.758	−30	+1.063	0.22119	146.337	4	1.834
23	9.86093	253.662	− 4	+0.138	0.22156	150.710	6	1.811
April 2	9.86154	269.516	+23	−0.795	0.22167	155.077	− 8	+1.777
12	9.86199	285.337	+43	−1.665	0.22152	159.444	10	1.733
22	9.86223	301.147	+50	−2.408	0.22111	163.816	11	1.678
Mai 2	9.86225	316.961	+43	−2.969	0.22044	168.200	13	1.614
12	9.86204	332.795	+22	−3.305	0.21951	172.599	14	1.540
22	9.86163	348.659	− 5	−3.390	0.21834	177.019	−14	+1.456
Juni 1	9.86104	4.558	−30	−3.218	0.21691	181.465	15	1.364
11	9.86032	20.495	−47	−2.798	0.21524	185.942	15	1.262
21	9.85952	36.475	−49	−2.161	0.21333	190.457	14	1.152
Juli 1	9.85870	52.500	−37	−1.354	0.21118	195.013	14	1.033
11	9.85793	68.573	−13	−0.439	0.20881	199.617	−13	+0.907
21	9.85727	84.696	+15	+0.515	0.20623	204.273	11	0.773
31	9.85676	100.867	+38	+1.429	0.20344	208.987	10	0.632
Aug. 10	9.85646	117.080	+50	+2.232	0.20046	213.763	7	0.485
20	9.85639	133.323	+46	+2.858	0.19731	218.608	5	0.332
30	9.85655	149.577	+27	+3.256	0.19399	223.525	− 3	+0.175
Sept. 9	9.85693	165.819	0	+3.394	0.19053	228.519	0	+0.014
19	9.85750	182.026	−27	+3.262	0.18696	233.595	+ 2	−0.150
29	9.85821	198.176	−45	+2.873	0.18330	238.756	5	0.315
Okt. 9	9.85900	214.256	−50	+2.260	0.17956	244.006	7	0.480
19	9.85982	230.261	−39	+1.475	0.17579	249.348	+10	−0.644
29	9.86060	246.194	−17	+0.578	0.17202	254.784	12	0.806
Nov. 8	9.86128	262.069	+11	−0.360	0.16828	260.316	13	0.963
18	9.86181	277.903	+35	−1.268	0.16460	265.943	14	1.113
28	9.86214	293.715	+49	−2.078	0.16104	271.666	15	1.255
Dez. 8	9.86227	309.525	+48	−2.731	0.15763	277.481	+15	−1.386
18	9.86217	325.349	+33	−3.177	0.15441	283.387	14	1.505
28	9.86185	341.198	+ 8	−3.382	0.15143	289.379	13	1.609
38	9.86134	357.079	−18	−3.330	0.14873	295.451	+11	−1.696

Venus: $\Omega = 76°.005$, $i = 3°.394$, $m = \frac{1}{408\,000}$

Mars: $\Omega = 48°.979$, $i = 1°.850$, $m = \frac{1}{3\,093\,500}$

Mittleres Äquinoktium 1925.0

0h Welt-Zeit	log R	Länge	log r	Heliozentr. Länge	Red. auf d. Bahn	Heliozentr. Breite
	ERDE 1931		JUPITER 1931			
1931					in 0.0001	
Jan. −8	9.99281	90°362	0.715117	104°1533	+12	+0°1015
+2	9.99267	100.552	0.715423	104.9868	14	0.1205
12	9.99276	110.744	0.715729	105.8191	16	0.1394
22	9.99307	120.927	0.716034	106.6502	18	0.1582
Febr. 1	9.99359	131.089	0.716339	107.4802	20	0.1770
11	9.99431	141.223	0.716644	108.3090	+22	+0.1957
21	9.99520	151.320	0.716948	109.1366	24	0.2144
März 3	9.99623	161.372	0.717251	109.9631	26	0.2330
13	9.99736	171.373	0.717554	110.7884	28	0.2515
23	9.99857	181.321	0.717857	111.6126	30	0.2700
April 2	9.99982	191.212	0.718158	112.4356	+32	+0.2883
12	0.00106	201.047	0.718459	113.2575	34	0.3066
22	0.00227	210.826	0.718758	114.0783	36	0.3248
Mai 2	0.00340	220.552	0.719057	114.8979	38	0.3429
12	0.00443	230.230	0.719355	115.7164	39	0.3609
22	0.00533	239.866	0.719652	116.5338	+41	+0.3788
Juni 1	0.00607	249.465	0.719948	117.3500	43	0.3966
11	0.00663	259.035	0.720242	118.1652	45	0.4143
21	0.00701	268.584	0.720536	118.9793	47	0.4319
Juli 1	0.00719	278.121	0.720828	119.7923	48	0.4494
11	0.00716	287.654	0.721119	120.6042	+50	+0.4668
21	0.00693	297.193	0.721408	121.4150	51	0.4840
31	0.00651	306.747	0.721696	122.2247	53	0.5012
Aug. 10	0.00590	316.323	0.721983	123.0334	54	0.5182
20	0.00511	325.930	0.722268	123.8410	55	0.5351
30	0.00418	335.576	0.722551	124.6476	+57	+0.5518
Sept. 9	0.00313	345.266	0.722833	125.4531	58	0.5685
19	0.00197	355.005	0.723113	126.2576	60	0.5850
29	0.00075	4.798	0.723391	127.0611	61	0.6013
Okt. 9	9.99951	14.647	0.723668	127.8635	62	0.6175
19	9.99827	24.552	0.723943	128.6649	+63	+0.6336
29	9.99707	34.513	0.724216	129.4653	64	0.6496
Nov. 8	9.99596	44.528	0.724486	130.2648	65	0.6654
18	9.99496	54.591	0.724755	131.0632	66	0.6810
28	9.99411	64.697	0.725022	131.8606	67	0.6965
Dez. 8	9.99344	74.839	0.725287	132.6571	+68	+0.7118
18	9.99297	85.007	0.725550	133.4526	69	0.7270
28	9.99272	95.193	0.725810	134.2472	70	0.7420
38	9.99268	105.386	0.726069	135.0408	+70	+0.7569

$m = \frac{1}{329\,390}$ $\Omega = 99°6906$ $i = 1°3073$ $m = \frac{1}{1047.35}$

Mittleres Äquinoktium 1925.0

SATURN 1931

0^h Welt-Zeit	log r	Heliozentr. Länge	Red. auf die Bahn	Heliozentr. Breite
			in 0°.001	
1930 Nov. 23	1.001556	282°.8594	−94	+0°.4389
1931 Jan. 2	1.001451	284.0645	83	0.3872
Febr. 11	1.001336	285.2701	72	0.3354
März 23	1.001210	286.4764	61	0.2833
Mai 2	1.001074	287.6834	50	0.2311
Juni 11	1.000927	288.8912	39	0.1787
Juli 21	1.000770	290.0998	27	0.1263
Aug. 30	1.000603	291.3094	16	0.0737
Okt. 9	1.000426	292.5199	− 4	+0.0210
Nov. 18	1.000238	293.7315	+ 7	−0.0317
1931 Dez. 28	1.000041	294.9442	19	0.0844
1932 Febr. 6	0.999833	296.1581	+30	−0.1371

$\Omega = 113°.0016$ $i = 2°.4913$ $m = \frac{1}{3501.6}$

URANUS 1931

0^h Welt-Zeit	log r	Heliozentr. Länge	Red. auf die Bahn	Heliozentr. Breite
			in 0°.001	
1930 Nov. 23	1.30129	13°.803	− 2	−0°.668
1931 Jan. 2	1.30122	14.235	2	0.665
Febr. 11	1.30115	14.666	2	0.662
März 23	1.30107	15.097	2	0.659
Mai 2	1.30100	15.529	2	0.656
Juni 11	1.30093	15.961	2	0.653
Juli 21	1.30085	16.392	2	0.650
Aug. 30	1.30077	16.824	2	0.647
Okt. 9	1.30069	17.256	2	0.644
Nov. 18	1.30061	17.688	2	0.640
1931 Dez. 28	1.30053	18.121	2	0.637
1932 Febr. 6	1.30045	18.553	− 3	−0.634

$\Omega = 73°.616$ $i = 0°.773$ $m = \frac{1}{22869}$

NEPTUN 1931

0^h Welt-Zeit	log r	Heliozentr. Länge	Red. auf die Bahn	Heliozentr. Breite
			in 0°.001	
1930 Nov. 23	1.47937	153°.771	+10	+0°.689
1931 Jan. 2	1.47938	154.009	10	0.696
Febr. 11	1.47940	154.247	10	0.703
März 23	1.47942	154.485	10	0.710
Mai 2	1.47943	154.723	10	0.716
Juni 11	1.47945	154.961	10	0.723
Juli 21	1.47947	155.199	10	0.730
Aug. 30	1.47948	155.437	10	0.737
Okt. 9	1.47950	155.675	11	0.743
Nov. 18	1.47951	155.913	11	0.750
1931 Dez. 28	1.47953	156.151	11	0.757
1932 Febr. 6	1.47955	156.389	+11	+0.763

$\Omega = 130°.954$ $i = 1°.777$ $m = \frac{1}{19314}$

Mittlere und Scheinbare Sternörter 1931

Reduktionsgrößen

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
905	[2 Ceti]	4.62	A 0	0 0 12.368	+3.0737	+ 12	−17 43 12.31	+20.040	− 4
1	α Androm.	2.15	A 0 p	0 4 48.995	+3.0990	+ 107	+28 42 34.29	+19.879	− 161
2	β Cassiopeiae	2.42	F 5	0 5 29.022	+3.1933	+ 677	+58 46 9.16	+19.859	− 180
3	ε Phoenicis	3.94	K 0	0 5 54.763	+3.0470	+ 99	−46 7 41.95	+19.845	− 192
4	[22 Androm.]	5.08	F 0	0 6 43.599	+3.1139	+ 8	+45 41 17.75	+20.033	− 3
5	[$\varkappa^2$ Sculptoris]	5.56	K 0	0 8 4.347	+3.0481	+ 4	−28 11 3.39	+20.038	+ 6
6	[ϑ Sculptoris]	5.19	F 5	0 8 13.604	+3.0490	+ 104	−35 31 9.83	+20.155	+ 124
7	γ Pegasi	2.87	B 2	0 9 40.795	+3.0879	+ 1	+14 47 59.75	+20.013	− 14
8	[Br. 6]	6.23	B 9	0 12 17.249	+3.3795	+ 68	+76 34 2.87	+20.017	+ 1
9	ι Ceti	3.75	K 0	0 15 54.737	+3.0564	− 15	− 9 12 22.96	+19.964	− 32
10	ζ Tucanae	4.34	F 8	0 16 29.171	+3.1338	+2695	−65 16 49.43	+21.146	+1154
11	β Hydri	2.90	G 0	0 22 9.273	+3.1779	+6938	−77 38 34.17	+20.269	+ 318
12	α Phoenicis	2.44	K 0	0 22 52.567	+2.9669	+ 168	−42 40 51.05	+19.536	− 409
13	12 Ceti	6.04	K 5	0 26 31.048	+3.0620	+ 8	− 4 20 18.37	+19.902	− 8
14	[Ceti 49 G.]	5.23	A 3	0 26 55.753	+3.0001	− 25	−24 10 9.76	+19.915	+ 9
15	[λ^1 Phoenicis]	4.88	A 2	0 28 5.461	+2.8960	+ 123	−49 11 6.44	+19.906	+ 12
16	[ϰ Cassiop.]	4.24	B 0	0 29 3.752	+3.3994	+ 11	+62 33 4.39	+19.886	+ 3
17	ζ Cassiopeiae	3.72	B 3	0 33 6.953	+3.3354	+ 23	+53 31 2.62	+19.828	− 7
18	π Androm.	4.44	B 3	0 33 11.400	+3.2015	+ 17	+33 20 23.06	+19.835	0
19	[ε Androm.]	4.52	G 5	0 34 54.261	+3.1677	− 173	+28 56 14.40	+19.561	− 251
20	δ Androm.	3.49	K 2	0 35 37.969	+3.2053	+ 106	+30 29 1.36	+19.719	− 84
21	α Cassiopeiae	2.47	K 0	0 36 34.722	+3.3956	+ 60	+56 9 33.10	+19.760	− 29
22	β Ceti	2.24	K 0	0 40 7.599	+3.0117	+ 160	−18 21 54.38	+19.776	+ 39
23	[η Phoenicis]	4.53	A 0	0 40 15.612	+2.7020	+ 5	−57 50 29.75	+19.728	− 8
26	[λ^2 Sculptoris]	5.97	K 0	0 40 51.973	+2.9001	+ 178	−38 48 6.29	+19.841	+ 114
25	o Cassiopeiae	4.70	B 2	0 40 52.248	+3.3375	+ 22	+47 54 25.11	+19.718	− 8
24	21 Cassiopeiae	5.59	A 2	0 41 3.353	+3.9322	− 57	+74 36 40.32	+19.700	− 23
27	ζ Androm.	4.30	K 0	0 43 40.598	+3.1775	− 75	+23 53 31.52	+19.603	− 79
28	[δ Piscium]	4.55	K 5	0 45 6.004	+3.1112	+ 52	+ 7 12 35.39	+19.612	− 46
31	[λ Hydri]	4.96	K 5	0 46 12.416	+2.0927	+ 397	−75 17 55.93	+19.612	− 27
29	[Br. 82]	5.45	F 2 + A 2	0 46 31.358	+3.6281	+ 59	+63 52 20.21	+19.628	− 5
30	[19 Ceti]	5.24	F 5	0 46 40.227	+3.0044	− 159	−11 0 56.30	+19.408	− 223
34	[λ^2 Tucanae]	5.34	K 0	0 52 25.742	+2.2415	− 33	−69 54 0.20	+19.477	− 45
32	γ Cassiopeiae	2.25	B 0 p	0 52 31.681	+3.6098	+ 37	+60 20 36.47	+19.516	− 4
33	μ Androm.	3.94	A 2	0 52 54.968	+3.3258	+ 129	+38 7 31.69	+19.548	+ 36
35	α Sculptoris	4.39	B 5	0 55 16.887	+2.8901	− 5	−29 43 48.86	+19.459	− 5
36	ε Piscium	4.45	K 0	0 59 21.585	+3.1126	− 55	+ 7 31 8.64	+19.406	+ 30
37	[26 Ceti]	6.07	F 0	1 0 15.876	+3.0870	+ 81	+ 0 59 50.32	+19.316	− 39
38	β Phoenicis	3.35	K 0	1 3 0.335	+2.6771	− 56	−47 5 17.40	+19.276	− 15
39	[ι Tucanae]	5.32	K 0	1 4 34.924	+2.3798	+ 100	−62 8 36.59	+19.250	− 4

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
40	[η Ceti]	3.60	K o	1 5 7.061	+3.0169	+ 137	−10 32 51.49	+19.109	−132
42	β Androm.	2.37	M a	1 5 51.724	+3.3557	+ 151	+35 15 18.71	+19.110	−113
41	[44 H. Cephei]	5.68	A o	1 6 14.382	+5.1235	+ 334	+79 18 26.85	+19.222	+ 9
43	[τ Piscium]	4.70	K o	1 7 51.269	+3.3011	+ 56	+29 43 25.11	+19.131	− 41
44	[Sculpt. 102 G.]	5.91	A 5	1 9 34.650	+2.7622	+ 39	−38 13 18.47	+19.100	− 27
45	υ Piscium	4.67	A 2	1 15 40.098	+3.2942	+ 15	+26 54 6.69	+18.951	− 11
47	ϑ Ceti	3.83	K o	1 20 34.425	+2.9983	− 55	− 8 32 20.18	+18.604	−214
46	[ψ Cassiop.]	4.96	K o	1 21 1.926	+4.2185	+ 135	+67 46 14.20	+18.837	+ 32
48	δ Cassiopeiae	2.80	A 5	1 21 17.085	+3.9126	+ 399	+59 52 38.46	+18.753	− 43
49	[γ Phoenicis]	3.40	K 5	1 25 22.152	+2.6048	− 38	−43 40 17.29	+18.452	−218
50	η Piscium	3.72	G 5	1 27 47.234	+3.2082	+ 15	+14 59 26.12	+18.584	− 7
51	40 Cassiopeiae	5.50	K o	1 32 57.719	+4.7627	− 20	+72 41 21.42	+18.412	− 6
53	[Hydri 14 G.]	6.06	G 5	1 33 10.508	+0.3837	− 70	−78 51 17.96	+18.283	−128
52	υ Persei	3.77	K o	1 33 44.748	+3.6754	+ 64	+48 16 45.39	+18.277	−113
54	α Eridani	0.60	B 5	1 35 8.844	+2.2362	+ 122	−57 35 13.04	+18.304	− 38
55	43 Cassiopeiae	5.54	A o p	1 37 12.150	+4.4222	+ 88	+67 41 41.78	+18.267	− 2
56	[ν Piscium]	4.68	K o	1 37 50.289	+3.1210	− 16	+ 5 8 20.30	+18.247	+ 2
58	[Sculpt. 129 G.]	5.64	A o	1 39 0.433	+2.6428	− 57	−37 10 47.88	+18.180	− 23
57	φ Persei	4.19	B o p	1 39 19.414	+3.7525	+ 26	+50 20 30.63	+18.177	− 15
59	τ Ceti	3.65	K o	1 40 51.739	+2.7870	−1195	−16 18 1.43	+18.987	+852
60	o Piscium	4.50	K o	1 41 44.822	+3.1665	+ 47	+ 8 48 39.85	+18.151	+ 50
61	Lac. ε Sculpt.	5.39	F o	1 42 24.803	+2.8087	+ 99	−25 23 50.06	+18.001	− 75
62	ζ Ceti	3.92	K o	1 48 3.212	+2.9607	+ 22	−10 40 31.19	+17.824	− 34
64	α Trianguli	3.58	F 5	1 49 8.539	+3.4170	+ 11	+29 14 36.27	+17.581	−233
63	ε Cassiopeiae	3.44	B 3	1 49 24.555	+4.3003	+ 50	+63 19 52.41	+17.788	− 15
65	ξ Piscium	4.84	K o	1 49 58.872	+3.1049	+ 13	+ 2 50 50.84	+17.799	+ 19
66	β Arietis	2.72	A 5	1 50 49.403	+3.3114	+ 65	+20 28 17.22	+17.637	−109
67	ψ Phoenicis	4.41	M b	1 50 52.837	+2.4052	− 94	−46 38 25.23	+17.643	−101
69	[η^2 Hydri]	4.72	K o	1 53 11.018	+1.5181	+ 119	−67 59 10.93	+17.729	+ 79
68	χ Eridani	3.73	G 5	1 53 16.343	+2.3341	+ 712	−51 57 7.94	+17.916	+270
72	α Hydri	3.02	F o	1 56 35.698	+1.8897	+ 361	−61 54 19.05	+17.527	+ 21
71	υ Ceti	4.18	M a	1 56 45.225	+2.8264	+ 91	−21 24 41.39	+17.485	− 14
70	50 Cassiopeiae	4.06	A 2	1 57 30.119	+5.0918	− 91	+72 5 18.83	+17.492	+ 25
73	γ Androm.	2.28 5.08	K o A o	1 59 39.286	+3.6772	+ 43	+41 59 57.84	+17.320	− 54
74	α Arietis	2.23	K 2	2 3 16.701	+3.3792	+ 137	+23 8 13.23	+17.071	−143
75	β Trianguli	3.08	A 5	2 5 25.828	+3.5659	+ 122	+34 39 42.36	+17.076	− 40
77	[6 Persei]	5.40	K o	2 9 0.234	+3.9823	+ 368	+50 44 46.41	+16.783	−169
76	55 Cassiopeiae	6.15	F 5 + A 2	2 9 2.491	+4.6892	− 10	+66 12 8.02	+16.953	+ 3
78	Lac. μ Forn.	5.24	A o	2 9 52.202	+2.6424	+ 13	−31 2 49.03	+16.913	+ 2
79	[γ Trianguli]	4.07	A o	2 13 12.317	+3.5628	+ 37	+33 31 44.62	+16.709	− 44

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ′ ″	″	
80	67 Ceti	5.70	G 5	2 13 32.413	+2.9915	+ 55	− 6 44 21.91	+16.627	−110
82	[φ Eridani]	3.78	B 8	2 14 2.613	+2.1425	+ 81	−51 49 52.36	+16.677	− 36
81	[ϑ Arietis]	5.69	A 0	2 14 16.981	+3.3348	− 10	+19 34 58.00	+16.699	− 2
83	[κ Fornacis]	5.37	F 5	2 19 23.108	+2.7451	+ 142	−24 7 45.30	+16.387	− 63
84	[λ Horologii]	5.47	F 2	2 22 58.096	+1.6770	− 95	−60 37 13.56	+16.132	−137
86	[κ Eridani]	4.44	B 5	2 24 27.271	+2.1976	− 2	−48 0 47.41	+16.170	− 23
85	ξ^2 Ceti	4.34	A 0	2 24 29.245	+3.1883	+ 26	+ 8 9 5.95	+16.187	− 4
88	[λ^1 Fornacis]	5.88	K 0	2 30 14.276	+2.4993	− 43	−34 57 10.77	+15.857	− 32
87	36 H. Cassiop.	5.34	K 0	2 31 25.766	+5.6707	− 60	+72 31 5.19	+15.847	+ 21
90	μ Hydri	5.29	K 0	2 33 5.386	−1.3075	+ 470	−79 24 38.16	+15.703	− 33
89	ν Arietis	5.36	A 2	2 34 53.599	+3.4041	− 9	+21 39 50.44	+15.622	− 16
91	δ Ceti	4.04	B 2	2 35 56.612	+3.0740	+ 7	+ 0 1 54.19	+15.578	− 2
95	[ε Hydri]	4.26	B 9	2 38 31.296	+0.9191	+ 168	−68 33 44.46	+15.442	+ 5
92	[Br. 366]	5.84	A 2	2 38 51.639	+5.1402	+ 25	+67 31 58.75	+15.390	− 29
94	[35 Arietis]	4.58	B 3	2 39 23.814	+3.5174	+ 4	+27 24 52.57	+15.382	− 7
93	ϑ Persei	4.22	F 8	2 39 28.539	+4.0908	+ 346	+48 56 15.99	+15.296	− 89
96	[γ Ceti]	3.58	A 2	2 39 43.362	+3.1072	− 98	+ 2 56 45.28	+15.222	−148
97	π Ceti	4.39	B 5	2 40 50.261	+2.8546	− 8	−14 9 0.17	+15.299	− 9
98	μ Ceti	4.36	F 0	2 41 12.525	+3.2414	+ 189	+ 9 49 25.54	+15.255	− 31
99	[η Persei]	3.93	K 0	2 45 38.933	+4.3671	+ 28	+55 36 37.67	+15.022	− 11
100	41 Arietis	3.68	B 8	2 45 55.007	+3.5285	+ 51	+26 58 37.91	+14.904	−113
101	β Fornacis	4.50	K 0	2 46 12.127	+2.5103	+ 63	−32 41 41.84	+15.159	+159
102	τ^2 Eridani	4.81	K 0	2 47 54.486	+2.7208	− 39	−21 17 16.09	+14.872	− 29
103	τ Persei	4.06	G 0 +A 5	2 49 21.156	+4.2453	+ 3	+52 28 53.11	+14.815	− 2
104	η Eridani	4.05	K 0	2 53 3.312	+2.9302	+ 52	− 9 10 18.79	+14.378	−218
106	ϑ Eridani	3.42 4.42	A 2	2 55 38.564	+2.2724	− 67	−40 34 49.32	+14.468	+ 28
105	47 H. Cephei	5.66	M a	2 56 49.984	+7.9224	− 113	+79 8 55.20	+14.390	+ 22
107	α Ceti	2.82	M a	2 58 40.188	+3.1347	− 9	+ 3 49 12.06	+14.179	− 76
108	γ Persei	3.08	F 5 +A 3	2 59 47.147	+4.3367	+ 2	+53 14 15.40	+14.183	− 4
109	*ρ Persei	var.	M b	3 0 44.835	+3.8404	+ 114	+38 34 27.03	+14.024	−103
110	μ Horologii	5.16	F 0	3 1 58.992	+1.4101	− 117	−60 0 17.99	+13.983	− 68
113	[ϑ Hydri]	5.52	B 8	3 2 5.936	+0.1132	+ 51	−72 10 18.52	+14.065	+ 22
111	*β Persei	var.	B 8	3 3 40.275	+3.8990	+ 7	+40 41 27.98	+13.943	− 1
112	[ι Persei]	4.17	G 0	3 4 4.560	+4.3225	+1297	+49 21 3.91	+13.835	− 84
114	δ Arietis	4.53	K 0	3 7 40.748	+3.4285	+ 106	+19 28 0.94	+13.687	− 4
117	12 Eridani	3.95	F 8	3 9 8.304	+2.5470	+ 241	−29 15 29.71	+14.241	+644
116	[94 Ceti]	5.14	F 8	3 9 15.074	+3.0616	+ 136	− 1 27 11.37	+13.528	− 62
118	[Horol. 38 G.]	5.72	N a	3 10 48.011	+1.5162	− 5	−57 34 46.67	+13.484	− 6
115	48 H. Cephei	5.50	F 0	3 11 29.640	+7.5557	+ 183	+77 29 2.30	+13.401	− 44
119	[e Eridani]	4.30	G 5	3 17 10.355	+2.3958	+2785	−43 19 59.11	+13.803	+730

Nr. 109. Größe: Max. 3.3, Min. 4.1 Nr. 111. Größe: Max. 2.3, Min. 3.5

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
120	α Persei	1.90	F 5	3 19 23.151	+4.2766	+ 29	+49 37 1.41	+12.899	— 26
121	o Tauri	3.80	G 5	3 21 5.836	+3.2274	— 44	+ 8 47 13.71	+12.734	— 76
123	[ξ Tauri]	3.75	B 8	3 23 25.597	+3.2501	+ 39	+ 9 29 35.25	+12.608	— 45
122	2 H. Camelop.	4.42	B 9 p	3 23 27.894	+4.8468	— 1	+59 42 6.06	+12.657	+ 6
124	[σ Persei]	4.55	K o	3 25 42.019	+4.2243	+ 9	+47 45 30.80	+12.522	+ 23
125	*f* Tauri	4.28	K o	3 27 3.616	+3.3108	+ 13	+12 42 4.70	+12.400	— 5
126	[κ Reticuli]	4.80	F 5	3 28 9.865	+1.0403	+514	—63 10 49.95	+12.690	+361
127	ε Eridani	3.81	K o	3 29 40.716	+2.8263	—658	— 9 41 27.27	+12.238	+ 13
128	[Horol. 45 G.]	5.60	K o	3 30 31.009	+1.7843	+ 48	—50 36 43.69	+12.247	+ 80
130	[*y* Eridani]	4.58	K o	3 34 37.041	+2.1520	— 16	—40 30 0.64	+11.855	— 24
129	[Grb 716]	5.32	M a	3 36 8.929	+5.1931	— 21	+62 59 42.08	+11.794	+ 22
131	δ Persei	3.10	B 5	3 38 0.182	+4.2663	+ 33	+47 34 6.51	+11.604	— 35
133	[δ Fornacis]	4.93	B 5	3 39 30.177	+2.3853	— 5	—32 9 28.93	+11.540	+ 7
135	[δ Eridani]	3.72	K o	3 39 56.487	+2.8736	— 64	— 9 59 45.20	+12.248	+747
132	[ο Persei]	3.94	B 1	3 39 59.183	+3.7596	+ 8	+32 4 15.47	+11.481	— 17
134	ν Persei	3.93	F 5	3 40 29.935	+4.0720	— 6	+42 21 43.39	+11.456	— 5
136	[17 Tauri]	3.81	B 5 p	3 40 46.435	+3.5607	+ 17	+23 53 51.84	+11.398	— 44
137	[24 Eridani]	5.09	B 8	3 41 0.113	+3.0466	+ 1	— 1 22 46.84	+11.417	— 8
138	5 H. Camelop.	4.67	A o	3 43 2.514	+6.3077	+ 42	+71 7 19.27	+11.238	— 40
141	β Reticuli	3.80	K o	3 43 19.666	+0.7470	+477	—65 1 26.34	+11.318	+ 61
139	η Tauri	2.96	B 5 p	3 43 22.729	+3.5645	+ 17	+23 53 35.04	+11.206	— 48
140	τ[6] Eridani	4.33	F 8	3 43 52.681	+2.5801	—123	—23 27 8.93	+10.698	—519
142	[27 Tauri]	3.80	B 8	3 45 3.306	+3.5654	+ 14	+23 50 37.55	+11.087	— 45
143	*g* Eridani	4.24	K o	3 46 52.301	+2.2451	— 40	—36 24 30.23	+10.948	— 52
146	γ Hydri	3.17	M a	3 48 17.252	—0.9457	+124	—74 27 3.41	+11.005	+109
144	ζ Persei	2.91	B 1	3 49 47.390	+3.7691	+ 11	+31 40 48.52	+10.774	— 11
145	*9 H. Camelop.	5.22	K o + A o	3 51 14.287	+5.1051	— 3	+60 54 31.02	+10.662	— 16
147	ε Persei	2.96	B 1	3 53 13.032	+4.0229	+ 23	+39 48 43.53	+10.502	— 29
148	ξ Persei	4.05	Oe 5	3 54 28.962	+3.8905	+ 10	+35 35 38.49	+10.429	— 8
149	γ Eridani	3.19	K 5	3 54 48.538	+2.7987	+ 42	—13 42 13.65	+10.301	—112
150	*λ Tauri	var.	B 3	3 56 51.270	+3.3227	— 5	+12 17 47.87	+10.246	— 13
151	ν Tauri	3.94	A o	3 59 29.020	+3.1907	+ 4	+ 5 47 56.39	+10.051	— 10
153	[Erid. 174 G.]	5.57	A 5	4 2 46.741	+2.4723	+148	—27 50 22.51	+ 9.918	+108
152	*c* Persei	4.03	B 3 p	4 3 38.690	+4.3519	+ 33	+47 31 47.82	+ 9.712	— 32
154	ο[1] Eridani	4.14	F 2	4 8 29.768	+2.9283	+ 8	— 7 0 58.95	+ 9.454	+ 82
155	α Horologii	3.83	K o	4 11 42.764	+1.9860	+ 20	—42 27 49.92	+ 8.903	—219
156	α Reticuli	3.36	G 5	4 13 31.836	+0.7686	+ 50	—62 38 46.34	+ 9.027	+ 47
157	[γ Doradus]	4.36	F 5	4 14 12.908	+1.5690	+ 89	—51 39 36.74	+ 9.098	+172
160	υ[4] Eridani	3.59	B 9	4 15 16.875	+2.2688	+ 37	—33 57 57.57	+ 8.831	— 12
159	[γ Tauri]	3.86	K o	4 15 51.835	+3.4132	+ 82	+15 27 44.27	+ 8.769	— 29

Nr. 145. Doppelstern, Größe der Komponenten: 5.0 und 8.2

Nr. 150. Größe: Max. 3.3, Min. 4.2

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
158	[54 Persei]	5.10	G 5	4 15 55.520	+3.8933	— 20	+34 24 6.14	+8.787	— 6
161	[Erid. 212 G.]	5.31	A 0	4 17 38.449	+2.6186	+ 36	—20 48 10.41	+8.673	+ 15
162	δ Tauri	3.93	K 0	4 18 57.170	+3.4590	+ 78	+17 22 55.36	+8.523	— 31
163	[η Reticuli]	5.18	K 0	4 21 8.295	+0.6456	+127	—63 33 0.16	+8.540	+160
166	[δ Mensae]	5.62	K 0 p	4 22 35.584	—4.0974	+ 99	—80 22 37.56	+8.336	+ 71
164	ε Tauri	3.63	K 0	4 24 35.100	+3.5025	+ 80	+19 1 43.82	+8.070	— 35
165	*[1 Camel. seq.]	5.42	B 1	4 26 33.408	+4.7474	+ 7	+53 45 46.09	+7.948	0
167	[δ Caeli]	5.16	B 3	4 28 43.196	+1.8363	— 6	—45 6 4.59	+7.757	— 17
168	α Tauri	1.06	K 5	4 31 57.535	+3.4417	+ 48	+16 22 19.17	+7.323	—189
171	α Doradus	3.47	A 0 p	4 32 30.313	+1.2967	+ 71	—55 11 12.91	+7.471	+ 3
170	[υ² Eridani]	3.88	K 0	4 32 51.996	+2.3315	— 46	—30 42 9.15	+7.433	— 6
169	ν Eridani	4.12	B 2	4 32 52.204	+2.9974	+ 2	— 3 29 32.36	+7.434	— 4
172	53 Eridani	3.98	K 0	4 35 1.142	+2.7468	— 54	—14 26 16.31	+7.099	—164
174	τ Tauri	4.33	B 5	4 38 6.076	+3.6004	+ 5	+22 49 33.68	+6.992	— 19
173	Grb 848	6.04	F 0	4 39 30.871	+8.0490	+105	+75 49 8.28	+6.762	—134
176	[μ Eridani]	4.18	B 5	4 42 3.079	+2.9999	+ 13	— 3 22 47.59	+6.675	— 12
175	4 Camelop.	5.35	A 2	4 42 14.829	+4.9927	+ 60	+56 38 12.20	+6.524	—146
177	[μ Mensae]	5.69	B 9	4 43 44.725	—0.6054	+ 17	—71 3 28.11	+6.575	+ 28
178	9 Camelop.	4.38	B 0	4 47 10.599	+5.9553	+ 5	+66 13 40.98	+6.272	+ 10
179	[π⁴ Orionis]	3.78	B 3	4 47 31.770	+3.1949	0	+ 5 29 18.03	+6.226	— 7
180	π⁵ Orionis	3.87	B 3	4 50 39.340	+3.1246	— 2	+ 2 19 44.19	+5.970	— 3
181	ι Aurigae	2.90	K 2	4 52 29.838	+3.9062	+ 10	+33 3 30.57	+5.799	— 20
183	*ε Aurigae	var.	F 5 p	4 57 0.811	+4.3036	+ 6	+43 43 22.57	+5.426	— 14
182	10 Camelop.	4.22	G 0 p	4 57 16.317	+5.3324	— 1	+60 20 37.34	+5.406	— 12
184	ι Tauri	4.70	A 5	4 58 58.179	+3.5859	+ 53	+21 29 34.56	+5.232	— 43
185	η Aurigae	3.28	B 3	5 1 40.364	+4.2061	+ 33	+41 8 34.53	+4.975	— 71
186	ε Leporis	3.29	K 5	5 2 32.380	+2.5397	+ 20	—22 27 45.34	+4.905	— 68
187	[η² Pictoris]	4.92	K 5	5 3 10.517	+1.5505	+ 35	—49 40 13.69	+4.925	+ 6
189	[ζ Doradus]	4.76	F 8	5 4 19.404	+1.0247	— 70	—57 33 59.85	+4.925	+103
188	β Eridani	2.92	A 3	5 4 27.410	+2.9495	— 59	— 5 10 27.75	+4.731	— 79
190	[λ Eridani]	4.34	B 2	5 5 50.618	+2.8711	+ 3	— 8 50 28.83	+4.689	— 4
192	μ Aurigae	4.78	A 3	5 8 42.224	+4.1044	— 13	+38 24 16.17	+4.370	— 79
191	19 H. Camelop.	5.16	F 8	5 11 8.858	+9.8600	—311	+79 9 22.37	+4.401	+161
194	β Orionis	0.34	B 8 p	5 11 13.248	+2.8830	+ 2	— 8 16 48.38	+4.234	0
193	α Aurigae	0.21	G 0	5 11 35.314	+4.4310	+ 84	+45 55 47.01	+3.775	—428
196	ϑ Doradus	4.78	K 0	5 13 48.332	—0.0498	+ 14	—67 15 46.55	+4.051	+ 39
195	[τ Orionis]	3.68	B 5	5 14 15.303	+2.9129	— 12	— 6 55 3.74	+3.967	— 7
197	[ο Columbae]	4.91	K 0	5 14 59.679	+2.1628	+ 63	—34 57 41.79	+3.582	—329
198	[Columb. 12 G.]	5.75	A 0	5 16 38.676	+2.3923	+ 8	—27 26 19.70	+3.758	— 11
199	[ζ Pictoris]	5.52	F 8	5 17 40.439	+1.4701	+ 9	—50 40 46.11	+3.908	+227

Nr 165. Doppelstern, Größe der Komponenten: 5.86 und 6.61.

Nr. 183. Größe: Max. 3.4, Min. 4.1

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
200	[η Orion. med.]	3.44	B 1	5 21 0.440	+3.0168	+ 5	− 2 27 33.42	+3.395	+ 1
201	γ Orionis	1.70	B 2	5 21 25.759	+3.2178	− 3	+ 6 17 18.47	+3.337	− 20
202	β Tauri	1.78	B 8	5 21 55.721	+3.7925	+ 25	+28 33 2.94	+3.138	−177
203	17 Camelop.	5.75	K 5	5 23 38.833	+5.6636	− 3	+63 0 43.45	+3.165	− 1
204	[β Leporis]	2.96	G 0	5 25 17.336	+2.5712	+ 4	−20 48 48.33	+2.931	− 93
206	δ Orionis	2.48 6.87	B 0	5 28 28.827	+3.0648	0	− 0 20 55.99	+2.746	− 2
207	α Leporis	2.69	F 0	5 29 41.178	+2.6460	+ 2	−17 52 13.98	+2.646	+ 2
205	Grb 966	6.36	K 5	5 30 29.227	+8.0184	− 8	+75 0 5.82	+2.594	+ 20
208	[φ[1] Orionis]	4.53	B 0	5 31 1.892	+3.2933	− 1	+ 9 26 39.06	+2.517	− 10
209	ι Orionis	2.87	Oe 5	5 32 3.443	+2.9350	+ 4	− 5 57 14.37	+2.433	− 4
210	ε Orionis	1.75	B 0	5 32 42.684	+3.0442	+ 1	− 1 14 40.89	+2.378	− 3
212	β Doradus	3.81	F 5 p	5 33 1.427	+0.5186	− 13	−62 32 5.20	+2.352	− 2
211	ζ Tauri	3.00	B 3 p	5 33 31.205	+3.5857	+ 6	+21 6 7.13	+2.285	− 26
214	[γ Mensae]	5.06	K 0	5 34 36.313	−2.3847	+283	−76 23 27.86	+2.514	+298
213	[σ Orionis]	3.78	B 0	5 35 16.884	+3.0117	0	− 2 38 18.96	+2.157	− 1
215	α Columbae	2.75	B 5 p	5 37 8.957	+2.1722	− 2	−34 6 36.34	+1.958	− 37
216	ο Aurigae	5.52	A 0	5 40 33.212	+4.6478	− 6	+49 47 53.02	+1.690	− 9
217	[γ Leporis]	3.80	F 8	5 41 35.227	+2.5019	−201	−22 28 11.55	+1.233	−376
218	[130 Tauri]	5.51	F 0	5 43 24.790	+3.4987	+ 4	+17 42 17.34	+1.443	− 6
219	ζ Leporis	3.67	A 2	5 43 49.703	+2.7184	− 12	−14 50 47.32	+1.411	− 2
220	κ Orionis	2.20	B 0	5 44 29.015	+2.8456	+ 4	− 9 41 34.44	+1.353	− 3
221	[ν Aurigae]	4.18	K 0	5 46 42.388	+4.1578	− 4	+39 7 48.57	+1.173	+ 11
222	[δ Leporis]	3.90	K 0	5 48 21.219	+2.5802	+165	−20 53 2.01	+0.365	−653
223	[β Columbae]	3.22	K 0	5 48 31.552	+2.1140	+ 34	−35 47 35.83	+1.407	+404
224	α Orionis	0.92	M a	5 51 26.145	+3.2483	+ 20	+ 7 23 44.52	+0.762	+ 13
226	[η Leporis]	3.77	F 0	5 53 15.715	+2.7328	− 27	−14 10 44.74	+0.729	+140
225	δ Aurigae	3.88	K 0	5 53 50.729	+4.9406	+100	+54 16 53.86	+0.416	−122
227	β Aurigae	2.07	A 0 p	5 54 28.056	+4.4019	− 42	+44 56 32.27	+0.476	− 8
228	ϑ Aurigae	2.71	A 0 p	5 55 0.974	+4.0922	+ 49	+37 12 34.11	+0.349	− 87
229	η Columbae	4.03	K 0	5 57 2.078	+1.8370	+ 22	−42 49 6.30	+0.226	− 34
230	[66 Orionis]	5.70	K 0	6 1 19.580	+3.1696	− 6	+ 4 9 49.74	−0.131	− 15
231	[Puppis 1 G.]	6.22	F 8	6 2 29.240	+1.7268	− 83	−45 2 8.32	+0.014	+232
232	ν Orionis	4.40	B 2	6 3 37.957	+3.4265	+ 11	+14 46 41.06	−0.349	− 31
233	[36 Camelop.]	5.39	K 0	6 5 54.547	+6.0358	− 5	+65 44 5.26	−0.546	− 29
235	[δ Pictoris]	4.84	B 1	6 8 57.190	+1.1671	− 22	−54 57 10.26	−0.790	− 7
236	*η Geminor.	var.	M a	6 10 42.779	+3.6224	− 42	+22 31 42.31	−0.950	− 13
234	22 H. Camelop.	4.73	A 0	6 11 14.812	+6.6154	+ 14	+69 20 49.60	−1.085	−102
239	[α Mensae]	5.14	K 0	6 12 17.531	−1.7914	+234	−74 43 49.01	−1.301	−226
237	[2 Lyncis]	4.42	A 0	6 13 32.225	+5.2957	− 7	+59 2 17.89	−1.154	+ 29
238	[κ Columbae]	4.51	K 0	6 14 5.811	+2.1344	− 6	−35 7 0.22	−1.158	+ 74

Nr. 236. Größe: Max. 3.3, Min. 4.2

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
240	ζ Canis maj.	3.10	B 3	6 17 39.814	+ 2.3029	+ 2	−30 1 53.96	−1.540	+ 4
241	μ Geminor.	3.19	M a	6 18 47.216	+ 3.6307	+ 48	+22 33 2.28	−1.752	− 111
242	ψ¹ Aurigae	5.10	K 2	6 19 35.176	+ 4.6231	+ 9	+49 19 30.61	−1.714	− 3
243	β Canis maj.	1.99	B 1	6 19 39.639	+ 2.6420	− 4	−17 55 13.68	−1.715	+ 2
244	8 Monocer.	4.48 6.54	A 5	6 20 6.730	+ 3.1800	− 7	+ 4 37 45.23	−1.753	+ 4
245	α Argus	−0.86	F 0	6 22 25.134	+ 1.3315	+ 16	−52 39 26.77	−1.946	+ 11
246	10 Monocer.	4.98	B 3	6 24 33.142	+ 2.9630	− 2	− 4 43 5.44	−2.138	+ 5
247	8 Lyncis	6.05	G 0	6 31 23.347	+ 5.4870	−285	+61 32 39.09	−3.013	− 277
249	ξ² Canis maj.	4.54	A 0	6 32 9.841	+ 2.5143	+ 5	−22 54 32.59	−2.791	+ 13
251	γ Geminor.	1.93	A 0	6 33 43.599	+ 3.4669	+ 34	+16 27 34.78	−2.985	− 46
250	51 Aurigae	5.71	K 0	6 33 52.764	+ 4.1588	− 18	+39 27 12.34	−3.067	− 114
248	23 H. Camelop.	5.60	F 8	6 34 29.495	+10.2729	−295	+79 38 36.67	−3.627	− 622
252	ν Argus	3.18	B 8	6 35 38.971	+ 1.8356	− 4	−43 8 5.30	−3.125	− 20
253	*S Monocer.	4.68	Oe 5	6 37 10.736	+ 3.3051	+ 6	+ 9 57 39.59	−3.243	− 5
254	ε Geminor.	3.18	G 5	6 39 41.312	+ 3.6927	+ 3	+25 12 3.80	−3.468	− 15
256	ξ Geminor.	3.40	F 5	6 41 25.057	+ 3.3682	− 75	+12 58 16.98	−3.802	− 199
255	[ψ⁵ Aurigae]	5.34	G 0	6 41 46.135	+ 4.3271	+ 7	+43 38 52.27	−3.479	+ 154
257	*α Canis maj.	−1.58	A 0	6 42 6.548	+ 2.6437	−371	−16 37 13.25	−4.874	−1212
258	18 Monocer.	4.70	K 0	6 44 15.845	+ 3.1297	− 2	+ 2 29 20.12	−3.867	− 20
264	[ζ Mensae]	5.64	A 2	6 45 49.194	− 4.9656	− 34	−80 44 33.18	−3.896	+ 85
259	[43 Camelop.]	5.13	B 5	6 46 16.551	+ 6.4799	+ 16	+68 58 16.44	−4.017	+ 3
262	α Pictoris	3.30	A 5	6 47 29.085	+ 0.6172	−100	−61 52 1.27	−3.867	+ 256
263	[τ Argus]	2.83	K 0	6 48 13.421	+ 1.4887	+ 29	−50 31 55.35	−4.282	− 96
261	ϑ Geminor.	3.64	A 2	6 48 14.621	+ 3.9566	+ 7	+34 2 45.89	−4.243	− 55
260	[24 H. Camel.]	4.75	K 5	6 50 1.857	+ 8.7764	+216	+77 4 8.47	−4.355	− 14
266	ϑ Canis maj.	4.25	K 2	6 50 59.052	+ 2.7877	− 94	−11 57 3.59	−4.436	− 13
265	15 Lyncis	4.54	G 0	6 51 18.479	+ 5.2003	− 1	+58 30 55.63	−4.580	− 130
267	[ι Volantis]	5.52	B 8	6 52 14.699	− 0.6819	− 4	−70 52 40.02	−4.518	+ 12
268	ε Canis maj.	1.63	B 1	6 55 54.797	+ 2.3577	0	−28 52 37.77	−4.841	+ 1
269	*ζ Geminor.	var.	G 0 p	7 0 1.092	+ 3.5599	0	+20 40 22.99	−5.192	− 3
270	[o² Canis maj.]	3.12	B 5 p	7 0 8.588	+ 2.5054	− 2	−23 43 53.15	−5.200	0
271	γ Canis maj.	4.07	B 5	7 0 38.243	+ 2.7153	+ 8	−15 31 48.77	−5.254	− 12
272	[Carinae 27 G.]	5.30	A 0	7 3 1.069	+ 1.1167	− 24	−56 38 40.20	−5.450	− 7
273	δ Canis maj.	1.98	F 8 p	7 5 35.101	+ 2.4391	− 8	−26 16 57.43	−5.655	+ 3
274	63 Aurigae	5.07	K 2	7 6 54.783	+ 4.1299	+ 45	+39 26 5.49	−5.769	0
275	[J Puppis]	4.47	F 0	7 10 35.518	+ 1.7096	−147	−46 38 36.35	−5.986	+ 91
276	[64 Aurigae]	5.75	A 3	7 13 14.618	+ 4.1757	− 3	+41 0 27.07	−6.294	+ 3
277	λ Geminor.	3.65	A 2	7 14 7.749	+ 3.4491	− 31	+16 39 58.45	−6.415	− 44
278	π Argus	2.74	K 5	7 14 42.298	+ 2.1186	− 14	−36 58 21.76	−6.416	+ 3
279	δ Geminor.	3.51	F 0	7 16 0.270	+ 3.5852	− 11	+22 6 39.44	−6.537	− 10

Nr. 253. Doppelstern, Größe der Komponenten: 6.0 und 8.8

Nr. 257. Ort des Schwerpunktes. Die Reduktion auf den Hauptstern ist nach den Elementen von Auwers A. N. 3085

1931.0 $\Delta\alpha = -0^s.153$ $\Delta\delta = -2''.26$

1932.0 $= -0.140$ $= -2.26$

Nr. 269. Größe: Max. 3.7, Min. 4.3

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
281	δ Volantis	4.02	F 5	7 16 52.329	−0.0234	+ 4	−67 49 51.85	− 6.610	− 12
280	19 Lyncis seq.	5.61	B 8	7 17 14.706	+4.9018	− 1	+55 24 48.29	− 6.663	− 34
283	[η Can. maj.]	2.43	B 5 p	7 21 21.932	+2.3731	− 5	−29 10 2.49	− 6.954	+ 13
282	ι Geminor.	3.89	K 0	7 21 26.658	+3.7289	− 83	+27 56 12.49	− 7.059	− 85
285	β Canis min.	3.09	B 8	7 23 24.614	+3.2548	− 31	+ 8 25 46.97	− 7.176	− 40
284	Grb 1308	5.80	K 0	7 23 43.072	+6.2585	− 7	+68 36 32.86	− 7.204	− 44
286	ρ Geminor.	4.18	F 0	7 24 40.591	+3.8614	+122	+31 55 24.31	− 7.056	+ 183
287	*α Geminor.	2.85 1.99	A 0	7 30 11.950	+3.8324	−129	+32 2 30.80	− 7.768	− 81
288	[Pupp. 108 G.]	4.52	F 8	7 31 5.927	+2.5675	− 39	−22 8 46.76	− 7.741	+ 18
289	25 Monocer.	5.17	F 5	7 33 50.891	+2.9834	− 47	− 3 57 20.44	− 7.961	+ 20
290	[*f* Puppis]	4.62	B 8	7 34 48.868	+2.2195	− 27	−34 48 44.53	− 8.042	+ 16
291	*α Canis min.	0.48	F 5	7 35 41.467	+3.1415	−470	+ 5 24 11.34	− 9.155	−1027
292	24 Lyncis	4.96	A 2	7 37 10.785	+5.0851	− 47	+58 52 25.81	− 8.300	− 53
293	[26 Monocer.]	4.07	K 0	7 37 57.021	+2.8661	− 57	− 9 23 20.47	− 8.330	− 21
294	κ Geminor.	3.68	G 5	7 40 17.114	+3.6246	− 15	+24 33 53.76	− 8.548	− 54
295	β Geminor.	1.21	K 0	7 41 5.818	+3.6739	−468	+28 11 39.57	− 8.610	− 52
297	ζ Volantis	3.89	K 0	7 42 40.633	−0.7324	+ 8	−72 26 26.49	− 8.675	+ 8
296	π Geminor.	5.29	K 2	7 43 3.726	+3.8720	− 1	+33 35 11.69	− 8.744	− 31
298	[Pupp. 205 G.]	5.34	G 0	7 48 34.623	+2.7786	− 41	−13 42 49.89	− 9.487	− 343
299	[26 Lyncis]	5.69	K 0	7 49 41.712	+4.3745	− 40	+47 44 42.47	− 9.238	− 6
301	[α Puppis]	3.76	G 5	7 49 50.664	+2.0621	− 18	−40 23 49.18	− 9.242	+ 1
300	Grb 1374	5.56	K 0	7 51 58.370	+7.2135	− 31	+74 6 18.32	− 9.440	− 32
303	χ Argus	3.60	B 3	7 55 1.530	+1.5266	− 32	−52 47 47.43	− 9.619	+ 24
302	[53 Camelop.]	6.00	A 2 p	7 55 49.763	+5.1377	− 30	+60 30 54.06	− 9.726	− 21
304	[27 Monocer.]	5.06	K 0	7 56 17.432	+2.9990	− 27	− 3 29 24.55	− 9.731	+ 9
305	χ Geminor.	5.04	K 0	7 59 17.055	+3.6876	− 15	+27 59 21.10	−10.014	− 46
306	ζ Argus	2.27	O d	8 1 9.474	+2.1079	− 34	−39 48 28.66	−10.099	+ 10
307	27 Lyncis	4.87	A 2	8 3 16.594	+4.5205	− 59	+51 42 26.25	−10.274	− 4
308	ι Navis	2.88	F 5	8 4 36.299	+2.5549	− 64	−24 6 15.94	−10.322	+ 47
309	γ Argus	2.22	O a p	8 7 24.329	+1.8488	− 12	−47 7 57.32	−10.582	− 4
311	20 Navis	5.05	G 5	8 10 9.703	+2.7580	− 8	−15 34 45.55	−10.788	− 6
310	Br 1147	5.73	G 5	8 10 55.309	+7.5774	+ 58	+75 58 13.31	−10.821	+ 17
312	β Cancri	3.76	K 2	8 12 46.514	+3.2550	− 30	+ 9 23 57.82	−11.026	− 52
313	[*q* Puppis]	4.43	A 5	8 15 58.241	+2.2444	−104	−36 26 40.83	−11.118	+ 89
314	31 Lyncis	4.43	K 5	8 18 7.162	+4.1135	− 8	+43 24 39.13	−11.469	− 108
315	ε Argus	1.74	K 0 + B	8 21 6.026	+1.2334	− 32	−59 17 12.82	−11.561	+ 15
316	Br 1197	3.95	A 0	8 22 12.835	+2.9989	− 41	− 3 40 48.69	−11.676	− 21
318	ϑ Chamael.	4.26	K 0	8 22 44.407	−1.7744	−458	−77 15 45.17	−11.662	+ 31
317	ο Ursae maj.	3.47	G 0	8 24 32.899	+4.9984	−174	+60 57 2.22	−11.931	− 110
319	[β Volantis]	3.65	K 0	8 24 59.518	+0.6576	− 54	−65 54 23.46	−12.029	− 177

Nr. 287. Rektaszension der Mitte, Deklination des folgenden, helleren Sterns. Nr. 291. Ort des Schwerpunktes. Die Reduktion auf den Ort des hellen Sterns beträgt nach den Elementen von Auwers A. N. 3929

1931.0 $\Delta\alpha = +0^s.061$ $\Delta\delta = +0''.16$
1932.0 $= +0 .065$ $= +0 .05$

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
320	Grb 1450	6.05	K 0	8 28 26.226	+3.9048	— 83	+38 15 15.97	—12.263	—170
321	η Cancri	5.52	K 0	8 28 43.329	+3.4722	— 26	+20 40 36.35	—12.163	— 50
322	[Grb 1446]	6.29	K 0	8 32 4.809	+6.7101	— 37	+73 52 23.48	—12.450	—104
323	[Grb 1460]	6.03	K 0	8 34 11.510	+4.4537	— 38	+52 57 17.57	—12.526	— 35
324	[e Velorum]	4.13	A 5	8 35 12.974	+2.1082	— 22	—42 44 49.48	—12.568	— 7
325	[6 Hydrae]	5.15	K 2	8 36 45.306	+2.8420	— 64	—12 13 49.66	—12.668	— 3
326	δ Cancri	4.17	K 0	8 40 46.027	+3.4118	— 9	+18 24 32.45	—13.171	—236
327	α Pyxidis	3.70	B 2	8 40 49.127	+2 4103	— 15	—32 56 12.38	—12.927	+ 12
328	ι Cancri	6.61 4.20	A 5 G 5	8 42 31.600	+3.6342	— 12	+29 0 48.60	—13.100	— 47
330	δ Argus	2.01	A 0	8 42 47.917	+1.6571	+ 22	—54 27 18.85	—13.164	— 93
329	[ε Hydrae]	3.48	F 8	8 43 7.443	+3.1787	— 126	+ 6 40 23.05	—13.142	— 50
331	[η Chamael.]	5.62	B 9	8 43 42.613	—2.0009	— 151	—78 42 48.26	—13.097	+ 34
332	[γ Pyxidis]	4.19	K 2	8 47 36.189	+2.5462	— 99	—27 27 10.71	—13.293	+ 94
333	[σ²Cancri med.]	5.60	K 0	8 50 2.390	+3.6642	+ 31	+30 50 30.66	—13.570	— 26
334	ζ Hydrae	3.30	K 0	8 51 44.899	+3.1729	— 64	+ 6 12 33.09	—13.642	+ 12
336	c Carinae	3.98	B 8	8 53 29.146	+1.3617	— 26	—60 22 49.04	—13.713	+ 52
335	ι Ursae maj.	3.12	A 5	8 54 29.610	+4.1154	— 437	+48 18 49.49	—14.075	—247
337	α Cancri	4.27	A 3	8 54 42.967	+3.2832	+ 26	+12 7 33.14	—13.878	— 35
339	10 Ursae maj.	4.09	F 5	8 56 10.156	+3.9013	— 383	+42 3 25.46	—14.198	—264
338	[ρ Ursae maj.]	4.99	M a	8 56 21.057	+5.4333	— 34	+67 54 0.73	—13.931	+ 15
341	ϰ Ursae maj.	3.68	A 0	8 58 55.469	+4.1037	— 27	+47 25 50.26	—14.171	— 65
340	[Grb 1501]	5.68	A 2	8 58 57.830	+4.4056	— 8	+54 33 26.00	—14.107	+ 3
343	α Volantis	4.18	A 5	9 1 21.709	+0.9505	— 8	—66 7 13.79	—14.371	—114
342	[c Velorum]	3.69	K 0	9 1 46.322	+2.0667	— 70	—46 49 21.05	—14.310	— 28
344	σ² Ursae maj.	4.87	F 8	9 4 20.884	+5.2995	— 16	+67 24 59.00	—14.507	— 67
345	λ Argus	2.22	K 5	9 5 27.346	+2.2051	— 33	—43 9 11.83	—14.498	+ 9
346	[36 Lyncis]	5.30	B 8	9 9 17.975	+3.9308	— 18	+43 30 11.91	—14.779	— 42
347	ϑ Hydrae	3.84	A 0	9 10 46.567	+3.1227	+ 89	+ 2 36 22.66	—15.137	—313
348	β Argus	1.80	A 0	9 12 27.026	+0.6648	— 304	—69 25 58.10	—14.825	+ 97
349	[38 Lyncis]	3.82	A 2	9 14 33.460	+3.7388	— 18	+37 5 44.38	—15.174	—129
350	*83 Cancri	6.60	F 5	9 15 8.026	+3.3510	— 80	+17 59 55.74	—15.213	—135
351	[ι Argus]	2.25	F 0	9 15 14.551	+1.6057	— 35	—58 59 6.86	—15.082	+ 2
352	40 Lyncis	3.30	K 5	9 16 51.455	+3.6592	— 178	+34 41 7.28	—15.165	+ 12
353	ϰ Argus	2.63	B 3	9 19 58.517	+1.8568	— 22	—54 42 55.61	—15.352	+ 2
354	α Hydrae	2.16	K 2	9 24 11.843	+2.9488	— 7	— 8 21 31.20	—15.556	+ 32
355	h Ursae maj.	3.75	F 0	9 26 6.657	+4.7473	+ 168	+63 21 53.56	—15.665	+ 28
356	[ε Antliae]	4.64	K 2	9 26 23.742	+2.4751	— 25	—35 38 56.31	—15.722	— 14
359	ψ Argus	3.64	F 5	9 27 58.815	+2.3613	— 172	—40 9 49.98	—15.720	+ 74
358	ϑ Ursae maj.	3.26	F 8 p	9 28 15.259	+4.0215	—1027	+51 59 34.22	—16.354	—545
357	d Ursae maj.	4.57	G 0	9 28 24.923	+5.3327	— 120	+70 8 6.30	—15.743	+ 75

Nr. 350. Größe aus Harvard 54 entnommen.

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
361	[*N* Velorum]	3.04	K 5	9 29 7.519	+1.8233	— 36	—56 43 45.72	—15.854	+ 1
360	10 Leon. min.	4.62	G 5	9 30 0.204	+3.6806	+ 13	+36 42 17.70	—15.928	— 26
362	[H. Carinae]	5.52	K 2	9 31 5.975	+0.4594	— 61	—72 46 29.37	—15.977	— 17
363	[Grb 1564]	5.74	K 0	9 36 22.370	+5.1617	—131	+69 33 10.32	—16.309	— 74
364	[κ Hydrae]	4.96	B 3	9 36 59.899	+2.8762	— 18	—14 1 6.05	—16.278	— 11
365	[ο Leonis]	3.76	F 5 + A 3	9 37 28.231	+3.2037	— 94	+10 12 25.54	—16.329	— 37
366	ϑ Antliae	4.98	F 5 p	9 41 7.477	+2.6735	— 40	—27 27 10.27	—16.440	+ 35
367	ε Leonis	3.12	G 0 p	9 41 56.337	+3.4084	— 31	+24 5 34.02	—16.533	— 17
369	υ Argus	3.15 6.03	F 0	9 45 22.683	+1.5005	— 21	—64 45 5.52	—16.686	— 1
368	υ Ursae maj.	3.89	F 0	9 46 6.029	+4.2795	—379	+59 21 51.67	—16.873	—154
370	6 Sextantis	6.00	A 2	9 47 45.458	+3.0237	+ 8	— 3 55 9.33	—16.829	— 30
371	[μ Leonis]	4.10	K 0	9 48 50.627	+3.4149	—162	+26 19 58.04	—16.907	— 56
373	[Hydrae 183 G.]	5.16	M a	9 51 36.948	+2.8304	— 25	—18 40 55.63	—17.047	— 66
372	Grb 1586	5.96	K 0	9 52 15.392	+5.3975	—179	+73 12 31.62	—17.056	— 45
374	[19 Leon. min.]	5.19	F 5	9 53 27.997	+3.6805	—100	+41 23 6.24	—17.093	— 27
375	[φ Argus]	3.70	B 5	9 54 26.258	+2.1044	— 21	—54 14 19.85	—17.113	— 2
377	[η Antliae]	5.25	F 0	9 55 54.493	+2.5723	— 83	—35 33 36.43	—17.201	— 24
376	[12 Sextantis]	6.63	A 5	9 56 8.415	+3.1128	— 47	+ 3 42 55.59	—17.160	+ 27
378	π Leonis	4.89	M a	9 56 34.153	+3.1717	— 21	+ 8 22 33.60	—17.232	— 25
379	η Leonis	3.58	A 0 p	10 3 34.425	+3.2727	— 2	+17 5 59.33	—17.519	— 6
380	α Leonis	1.34	B 8	10 4 41.989	+3.1968	—167	+12 18 18.23	—17.561	— 1
381	λ Hydrae	3.83	K 0	10 7 13.462	+2.9252	—134	—12 0 44.46	—17.753	— 87
382	*q* Velorum	4.09	A 2	10 11 50.103	+2.5147	—154	—41 46 46.22	—17.808	+ 45
385	[ω Argus]	3.56	B 8	10 12 6.154	+1.4319	— 29	—69 41 41.86	—17.864	0
384	ζ Leonis	3.65	F 0	10 12 51.408	+3.3396	+ 15	+23 45 42.74	—17.901	— 7
383	λ Ursae maj.	3.52	A 2	10 12 56.634	+3.6244	—148	+43 15 34.46	—17.946	— 49
386	μ Ursae maj.	3.21	K 5	10 18 13.593	+3.5801	— 70	+41 50 49.62	—18.076	+ 24
387	30 H. Urs. maj.	4.92	A 0	10 19 10.714	+4.3435	— 25	+65 54 58.31	—18.154	— 18
388	[25 Sextantis]	6.10	B 9	10 19 57.234	+3.0321	— 40	— 3 43 29.38	—18.167	— 2
389	μ Hydrae	4.06	K 5	10 22 45.169	+2.9016	— 85	—16 29 0.73	—18.348	— 82
391	*J* Carinae	4.08	F 5	10 23 1.708	+1.1923	— 67	—73 40 47.98	—18.293	— 17
390	31 Leon. min.	4.41	K 0	10 23 54.021	+3.4742	— 96	+37 3 41.10	—18.414	—106
392	Lac. α Antliae	4.42	K 5	10 23 59.523	+2.7437	— 62	—30 42 57.44	—18.301	+ 10
393	*s* Carinae	4.08	F 0	10 25 20.478	+2.1983	— 32	—58 23 12.29	—18.373	— 14
394	36 Ursae maj.	4.84	F 5	10 26 13.481	+3.8495	—216	+56 20 6.23	—18.423	— 33
396	[ρ Leonis]	3.85	B 0 p	10 29 10.791	+3.1602	— 6	+ 9 39 43.96	—18.496	— 5
395	9 H. Dracon.	5.04	G 5	10 29 16.875	+5.1406	— 96	+76 4 9.48	—18.499	— 4
397	[*p* Carinae]	3.58	B 5 p	10 29 34.080	+2.1317	— 18	—61 19 47.87	—18.499	+ 5
399	[44 Hydrae]	5.32	K 2	10 30 43.898	+2.8532	— 2	—23 23 20.81	—18.522	+ 21
398	[37 Ursae maj.]	5.16	F 0	10 30 43.907	+3.8758	+ 83	+57 26 19.16	—18.507	+ 36

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ′ ″	″	
400	*[p Velorum]	4.06	F 2 + A 3	10 34 23.713	+2.5156	—183	—47 52 1.11	—18.696	— 34
401	[γ Chamael.]	4.10	M a	10 34 40.151	+0.7243	—116	—78 14 58.37	—18.641	+ 30
402	[x Velorum]	4.37	G o	10 36 33.097	+2.3796	— 75	—55 14 37.48	—18.751	— 21
404	33 Sextantis	6.40	K o	10 37 53.609	+3.0523	— 94	— 1 22 42.25	—18.897	—125
403	[35 H.Urs. maj.]	5.23	K o	10 38 9.226	+4.3163	— 19	+69 26 15.73	—18.798	— 18
405	[41 Leon. min.]	5.05	A 2	10 39 40.107	+3.2649	— 80	+23 33 0.81	—18.813	+ 13
406	ϑ Argus	3.03	B o	10 40 29.466	+2.1374	— 26	—64 1 57.27	—18.846	+ 4
407	42 Leon. min.	5.37	B 9	10 42 2.020	+3.3398	— 15	+31 2 46.52	—18.933	— 37
408	μ Argus	2.84	G 5	10 43 47.730	+2.5751	+ 49	—49 3 19.24	—19.011	— 65
411	[δ² Chamael.]	4.62	B 3	10 45 9.605	+0.5855	—120	—80 10 33.83	—18.976	+ 9
409	l Leonis	5.27	A o	10 45 37.940	+3.1548	— 3	+10 54 38.56	—19.029	— 30
410	[ν Hydrae]	3.32	K o	10 46 13.152	+2.9596	+ 66	—15 49 55.97	—18.820	+194
412	[46 Leon. min.]	3.92	K o	10 49 27.542	+3.3596	+ 76	+34 35 14.31	—19.384	—282
414	[ι Antliae]	4.70	K o	10 53 29.914	+2.7934	+ 62	—36 45 59.58	—19.343	—137
413	[Br 1508]	6.26	G 5	10 54 29.307	+4.8414	—258	+78 8 25.42	—19.257	— 26
415	i Velorum	4.56	A 2	10 56 59.063	+2.7498	+ 20	—41 51 19.84	—19.295	— 4
416	β Ursae maj.	2.44	A o	10 57 41.451	+3.6304	+101	+56 45 9.44	—19.282	+ 26
417	α Ursae maj.	1.95	K o	10 59 29.150	+3.7148	—174	+62 7 25.82	—19.421	— 72
418	χ Leonis	4.66	F o	11 1 27.552	+3.0956	—231	+ 7 42 33.90	—19.439	— 46
419	[χ Hydrae]	5.06	F 5	11 2 0.226	+2.8876	—154	—26 55 15.16	—19.413	— 7
420	ψ Ursae maj.	3.15	K o	11 5 47.542	+3.3789	— 57	+44 52 23.36	—19.522	— 36
421	β Crateris	4.52	A 2	11 8 15.715	+2.9493	0	—22 26 55.55	—19.633	— 98
422	δ Leonis	2.58	A 3	11 10 26.517	+3.1930	+106	+20 54 7.22	—19.714	—136
423	ϑ Leonis	3.41	A o	11 10 37.287	+3.1495	— 43	+15 48 25.19	—19.662	— 81
424	[Grb 1757]	5.97	K o	11 12 49.056	+3.3870	— 97	+49 51 10.84	—19.643	— 22
425	ν Ursae maj.	3.71	K o	11 14 45.439	+3.2446	— 16	+33 28 15.67	—19.633	+ 22
426	δ Crateris	3.82	K o	11 15 53.348	+2.9984	— 88	—14 24 17.75	—19.474	+200
427	σ Leonis	4.13	A o	11 17 34.771	+3.0943	— 62	+ 6 24 27.91	—19.714	— 12
428	π Centauri	4.26	B 5	11 17 51.204	+2.7311	— 41	—54 6 45.66	—19.719	— 13
429	Grb 1771	5.98	A o	11 18 46.315	+3.5779	— 10	+64 42 30.25	—19.686	+ 34
430	[ι Leonis]	4.03	F 5	11 20 19.708	+3.1279	+106	+10 54 33.95	—19.828	— 84
431	[γ Crateris]	4.14	A 5	11 21 25.957	+2.9960	— 72	—17 18 17.01	—19.754	+ 7
432	[58 Ursae maj.]	5.88	F 8	11 26 47.535	+3.2520	— 43	+43 33 7.57	—19.762	+ 72
433	λ Draconis	4.06	M a	11 27 19.777	+3.5785	— 79	+69 42 43.44	—19.862	— 21
434	ξ Hydrae	3.72	G 5	11 29 36.230	+2.9480	—167	—31 28 32.44	—19.911	— 43
435	[C² Centauri]	5.42	F o	11 32 34.442	+2.9016	+ 13	—47 15 31.66	—19.948	— 47
436	λ Centauri	3.34	B 9	11 32 35.319	+2.7590	— 58	—62 38 16.56	—19.918	— 17
437	υ Leonis	4.47	K o	11 33 24.945	+3.0718	+ 1	— 0 26 33.78	—19.874	+ 36
438	[π Chamael.]	5.74	F o	11 34 24.339	+2.4685	—280	—75 30 51.91	—19.924	— 5
439	[o Hydrae]	4.88	B 8	11 36 46.915	+2.9775	— 30	—34 21 43.55	—19.941	+ 1

Nr. 400. Doppelstern, Größe der Komponenten: 4.5 und 5.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
440	3 Draconis	5.48	K 0	11 38 38.469	+3.3599	− 78	+67 7 37.08	−19.918	+ 40
442	[λ Muscae]	3.80	A 5	11 42 20.344	+2.8228	−153	−66 20 46.40	−19.965	+ 20
441	χ Ursae maj.	3.85	K 0	11 42 24.879	+3.1740	−133	+48 9 43.21	−19.966	+ 20
443	[Centauri 65 G.]	4.22	G 0	11 43 9.998	+2.8950	− 25	−60 47 41.37	−20.025	− 35
444	β Leonis	2.23	A 2	11 45 32.509	+3.0613	−341	+14 57 28.21	−20.122	−118
445	β Virginis	3.80	F 8	11 47 6.063	+3.1252	+494	+ 2 9 12.86	−20.289	−276
446	[B Centauri]	4.71	K 0	11 47 41.155	+2.9906	−111	−44 47 23.34	−20.061	− 46
447	γ Ursae maj.	2.54	A 0	11 50 12.617	+3.1624	+107	+54 4 42.02	−20.024	+ 2
448	[ε Chamael.]	5.05	B 9	11 56 10.287	+2.9531	−162	−77 50 15.35	−20.050	− 9
449	[Centauri 88 G.]	5.28	F 0	12 0 4.635	+3.1000	+267	−42 2 51.89	−20.167	−122
450	ο Virginis	4.24	G 5	12 1 41.701	+3.0566	−147	+ 9 6 57.89	−20.006	+ 38
451	[Grb 1852]	5.96	K 0	12 1 46.153	+3.0707	+436	+77 17 29.53	−20.140	− 96
452	δ Centauri	2.88	B 3 p	12 4 46.408	+3.1021	− 44	−50 20 17.39	−20.058	− 18
453	ε Corvi	3.21	K 0	12 6 34.348	+3.0835	− 51	−22 14 9.78	−20.025	+ 11
454	4 H. Draconis	5.12	A 5	12 8 59.324	+2.8287	+ 23	+77 59 58.61	−20.006	+ 23
455	[δ Crucis]	3.08	B 3	12 11 28.183	+3.1764	− 51	−58 21 55.15	−20.046	− 27
456	δ Ursae maj.	3.44	A 2	12 12 1.227	+2.9768	+135	+57 24 57.00	−20.014	+ 3
457	[γ Corvi]	2.78	B 8	12 12 15.278	+3.0837	−112	−17 9 32.19	−19.999	+ 17
458	[2 Can. ven.]	5.80	K 5	12 12 40.446	+3.0112	+ 26	+41 2 38.54	−20.059	− 45
459	β Chamael.	4.38	B 5	12 14 15.585	+3.4833	−143	−78 55 45.05	−19.993	+ 12
460	η Virginis	4.00	A 0	12 16 22.503	+3.0692	− 42	− 0 17 0.56	−20.016	− 23
461	[6 Can. ven.]	5.22	K 0	12 22 27.246	+2.9588	− 67	+39 24 4.55	−19.984	− 36
462	α Crucis med.	1.58 2.09	B 1	12 22 45.046	+3.3253	− 44	−62 43 2.25	−19.977	− 31
463	[Hydr. 323 G.]	5.68	A 0	12 23 13.150	+3.1574	− 14	−32 26 52.59	−19.990	− 49
464	[σ Centauri]	4.16	B 3	12 24 17.944	+3.2370	− 36	−49 50 55.53	−19.964	− 33
466	20 Comae	5.72	A 2	12 26 15.405	+3.0160	+ 26	+21 16 40.63	−19.952	− 39
465	δ Corvi	3.11	A 0	12 26 17.471	+3.1027	−145	−16 7 53.33	−20.055	−142
467	[74 Ursae maj.]	5.44	A 5	12 26 44.377	+2.8066	− 96	+58 47 6.65	−19.820	+ 88
468	[γ Crucis]	1.61	M b	12 27 19.559	+3.3177	+ 26	−56 43 37.65	−20.180	−278
469	[γ Muscae]	4.04	B 5	12 28 19.412	+3.5643	− 82	−71 45 7.82	−19.913	− 22
470	8 Can. ven.	4.32	G 0	12 30 28.237	+2.8525	−624	+41 43 55.49	−19.587	+280
472	κ Draconis	3.88	B 5 p	12 30 32.889	+2.5688	−117	+70 10 6.05	−19.859	+ 7
471	β Corvi	2.84	G 5	12 30 45.477	+3.1484	− 4	−23 0 55.46	−19.923	− 59
473	24 Comae seq.	5.18	K 0	12 31 40.222	+3.0106	+ 2	+18 45 24.01	−19.835	+ 18
474	α Muscae	2.94	B 3	12 33 2.983	+3.5613	− 56	−68 45 20.70	−19.868	− 32
475	[χ Virginis]	4.78	K 0	12 35 40.994	+3.0957	− 49	− 7 36 58.32	−19.839	− 37
476	γ Centauri	2.38	A 0	12 37 42.052	+3.3005	−205	−48 34 52.08	−19.793	− 20
477	[γ Virgin. med.]	3.65 3.68	F 0 F 0	12 38 9.766	+3.0395	−375	− 1 4 16.64	−19.762	+ 5
478	76 Ursae maj.	5.92	A 0	12 38 33.519	+2.6275	− 45	+63 5 29.96	−19.778	− 17
479	[Hydr. 330 G.]	5.73	K 2	12 40 19.560	+3.1944	− 26	−27 56 44.42	−19.785	− 50

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ′ ″	″	
480	[β Muscae]	3.26	B 3	12 42 1.749	+3.6627	− 53	−67 43 50.77	−19.739	− 31
481	β Crucis	1.50	B 1	12 43 40.498	+3.4935	− 59	−59 18 42.84	−19.708	− 27
482	*n* Centauri	4.34	A 5	12 49 36.397	+3.3166	+ 45	−39 48 14.83	−19.614	− 37
483	ε Ursae maj.	1.68	A 0 p	12 50 59.971	+2.6438	+136	+56 20 2.48	−19.561	− 11
484	δ Virginis	3.66	M a	12 52 7.613	+3.0215	−315	+ 3 46 19.11	−19.591	− 63
486	8 Draconis	5.27	F 0	12 52 44.085	+2.3928	− 15	+65 48 44.96	−19.549	− 34
485	12 Can. ven. sq.	2.90	A 0 p	12 52 48.204	+2.8086	−199	+38 41 26.33	−19.464	+ 50
487	[δ Muscae]	3.63	K 2	12 57 29.616	+4.0991	+530	−71 10 37.93	−19.453	− 36
488	ε Virginis	2.95	K 0	12 58 44.527	+2.9866	−185	+11 19 46.65	−19.372	+ 18
489	[ξ² Centauri]	4.40	B 3	13 2 52.277	+3.4938	− 35	−49 32 14.16	−19.324	− 30
490	ϑ Virginis	4.44	A 0	13 6 22.511	+3.1050	− 24	− 5 10 16.02	−19.249	− 39
491	[17 Can. ven.]	6.04	F 0	13 6 53.295	+2.7571	− 59	+38 51 54.37	−19.165	+ 32
492	43 Comae	4.32	G 0	13 8 39.316	+2.8010	−602	+28 13 38.92	−18.273	+878
493	[η Muscae]	4.95	B 8	13 10 33.091	+4.0485	− 33	−67 31 46.56	−19.131	− 30
494	[20 Can. ven.]	4.66	F 0	13 14 27.100	+2.6923	−107	+40 56 7.04	−18.988	+ 8
495	γ Hydrae	3.33	G 5	13 15 9.969	+3.2591	+ 51	−22 48 29.18	−19.029	− 53
496	ι Centauri	2.91	A 2	13 16 42.605	+3.3666	−294	−36 20 56.04	−19.024	− 92
497	ζ Urs. maj. pr.	2.40	A 2 p	13 21 9.068	+2.4185	+143	+55 17 6.95	−18.826	− 25
498	α Virginis	1.21	B 2	13 21 33.297	+3.1590	− 28	−10 48 6.18	−18.822	− 33
499	Grb 2001	6.07	K 5	13 24 22.350	+1.5277	+ 35	+72 44 58.01	−18.716	− 15
500	69 H. Urs. maj.	5.41	A 0	13 25 55.330	+2.2040	−109	+60 18 6.38	−18.615	+ 37
501	ζ Virginis	3.44	A 2	13 31 10.531	+3.0561	−190	− 0 14 37.59	−18.444	+ 35
502	17 H. Can. ven.	4.96	F 0	13 31 43.050	+2.6793	+ 64	+37 32 7.29	−18.474	− 13
503	[Chamael. 49 G.]	6.44	A 0	13 33 14.819	+5.0883	− 49	−75 19 57.75	−18.422	− 14
504	ε Centauri	2.56	B 1	13 35 30.126	+3.7900	− 37	−53 6 59.04	−18.363	− 34
505	[Grb 2029]	5.67	K 0	13 35 31.372	+1.4388	− 86	+71 35 35.25	−18.329	0
506	[*i* Centauri]	4.36	F 5	13 41 45.578	+3.4043	−371	−32 41 43.90	−18.257	−156
507	τ Bootis	4.51	F 5	13 43 58.987	+2.8508	−340	+17 47 59.77	−17.988	+ 28
509	η Ursae maj.	1.91	B 3	13 44 49.469	+2.3662	−119	+49 39 25.39	−18.004	− 20
508	[μ Centauri]	3.32	B 2 p	13 45 27.023	+3.6068	− 28	−42 7 50.06	−17.979	− 19
510	89 Virginis	5.11	K 0	13 46 7.112	+3.2575	− 69	−17 47 27.97	−17.972	− 38
511	[*i* Draconis]	4.77	M a	13 49 25.021	+1.7524	0	+65 3 49.54	−17.805	− 2
512	ζ Centauri	3.06	B 2 p	13 51 13.411	+3.7332	− 70	−46 56 58.60	−17.790	− 61
513	η Bootis	2.80	G 0	13 51 23.963	+2.8569	− 41	+18 44 34.47	−18.086	−364
514	[Cent. 294 G.]	4.68	K 0	13 52 38.130	+4.3248	− 46	−63 20 57.35	−17.707	− 35
515	[47 Hydrae]	5.17	B 8	13 54 38.547	+3.3634	− 34	−24 38 10.58	−17.628	− 40
517	11 Bootis	6.12	A 3	13 58 2.820	+2.7214	− 57	+27 43 8.82	−17.436	+ 8
516	τ Virginis	4.34	A 2	13 58 8.002	+3.0526	+ 13	+ 1 52 39.45	−17.470	− 30
518	β Centauri	0.86	B 1	13 58 56.216	+4.2199	− 28	−60 2 28.41	−17.445	− 40
519	[π Hydrae]	3.48	K 0	14 2 26.178	+3.4129	+ 30	−26 21 3.18	−17.404	−153

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
521	α Draconis	3.64	A 0 p	14 2 31.205	+1.6240	— 83	+64 42 18.81	—17.231	+ 16
520	ϑ Centauri	2.26	K 0	14 2 36.810	+3.5246	— 439	—36 1 53.16	—17.774	— 530
522	*d* Bootis	4.82	F 5	14 7 15.174	+2.7370	— 12	+25 25 3.93	—17.102	— 69
524	4 Ursae min.	5.00	K 0	14 9 5.229	—0.2585	— 112	+77 52 18.37	—16.916	+ 32
523	ϰ Virginis	4.31	K 0	14 9 12.712	+3.1987	+ 4	— 9 57 12.17	—16.808	+ 134
525	ι Virginis	4.16	F 5	14 12 23.586	+3.1440	— 13	— 5 40 19.56	—17.223	— 431
526	α Bootis	0.24	K 0	14 12 30.810	+2.7362	— 776	+19 32 27.21	—18.787	—2001
528	[ι Bootis]	4.78	A 5	14 13 43.399	+2.1254	— 159	+51 41 5.58	—16.642	+ 86
527	λ Bootis	4.26	A 0	14 13 45.722	+2.2818	— 177	+46 24 15.98	—16.574	+ 152
529	[υ Centauri]	4.41	B 5	14 15 29.303	+4.1753	— 47	—56 4 11.80	—16.682	— 39
530	[Circini 10 G.]	5.71	A 2 p	14 19 21.191	+4.9472	— 41	—67 52 58.95	—16.487	— 36
531	ϑ Bootis	4.06	F 8	14 22 50.906	+2.0429	— 256	+52 10 8.49	—16.680	— 405
532	[52 Hydrae]	5.00	B 8	14 24 7.531	+3.5091	— 28	—29 10 57.14	—16.240	— 30
533	[φ Virginis]	4.97	K 0	14 24 38.708	+3.0903	— 90	— 1 55 10.40	—16.190	— 7
534	ρ Bootis	3.78	K 0	14 28 51.401	+2.5860	— 76	+30 40 24.54	—15.850	+ 113
535	γ Bootis	3.00	F 0	14 29 18.021	+2.4166	— 93	+38 36 33.41	—15.795	+ 144
536	[Grb 2125]	6.18	F 0	14 29 50.385	+1.6288	— 58	+60 31 45.02	—15.892	+ 18
537	η Centauri	2.65	B 3 p + A 2 p	14 31 6.990	+3.8027	— 36	—41 51 20.89	—15.879	— 36
538	*α Centauri	0.33 1.70	G 0 K 5	14 34 53.884	+4.0653	—4883	—60 33 6.21	—14.929	+ 709
540	[33 Bootis]	5.39	A 0	14 36 16.170	+2.2327	— 67	+44 42 5.76	—15.588	— 26
539	[α Circini]	3.41	F 0	14 36 54.326	+4.8267	— 320	—64 40 33.51	—15.766	— 239
541	[α Lupi]	2.89	B 2	14 37 19.804	+3.9821	— 20	—47 5 35.91	—15.540	— 36
543	ζ Bootis med.	4.83 4.43	A 2	14 37 51.177	+2.8645	+ 37	+14 1 23.90	—15.501	— 27
542	α Apodis	3.81	K 5	14 39 11.816	+7.3691	— 56	—78 45 14.78	—15.435	— 35
545	μ Virginis	3.95	F 5	14 39 25.263	+3.1601	+ 69	— 5 21 33.38	—15.714	— 326
544	[*c*¹ Centauri]	4.13	K 0	14 39 25.760	+3.6637	— 61	—34 52 40.02	—15.585	— 198
546	[*b* Lupi]	5.20	K 0	14 42 10.948	+4.1860	— 24	—52 5 33.96	—15.324	— 92
547	109 Virginis	3.76	A 0	14 42 45.520	+3.0322	— 75	+ 2 10 57.18	—15.238	— 39
548	α Librae	2.90	A 3	14 47 3.423	+3.3163	— 77	—15 45 22.08	—15.024	— 74
549	Grb 2164	5.67	K 2	14 49 41.162	+1.5211	— 170	+59 34 25.51	—14.667	+ 129
550	β Ursae min.	2.24	K 5	14 50 53.205	—0.1901	— 78	+74 26 14.94	—14.719	+ 7
551	Pi XIV, 221	5.77	A 0	14 52 57.764	+2.8313	— 10	+14 43 26.50	—14.620	— 18
552	β Lupi	2.81	B 2 p	14 54 0.124	+3.9213	— 51	—42 51 26.64	—14.600	— 60
553	[ϰ Centauri]	3.35	B 3	14 54 39.822	+3.8966	— 21	—41 49 42.92	—14.533	— 33
554	[2 H. Urs. min.]	4.86	M b	14 56 28.735	+0.9483	— 147	+66 12 25.23	—14.356	+ 34
555	β Bootis	3.63	G 5	14 59 20.813	+2.2600	— 36	+40 39 42.40	—14.257	— 43
556	γ Scorpii	3.41	M b	15 0 1.573	+3.5081	— 57	—25 0 43.41	—14.227	— 55
557	ψ Bootis	4.67	K 0	15 1 29.324	+2.5707	— 131	+27 12 56.51	—14.096	— 15
558	ζ Lupi	3.50	K 0	15 7 18.892	+4.2998	— 133	—51 50 16.70	—13.787	— 73
559	[ι Librae]	4.66	A 0 p	15 8 17.013	+3.4168	— 32	—19 31 54.60	—13.699	— 47

Nr. 538. Schwerpunkt des Systems. Abstand vom Schwerpunkt nach den Elementen von Lohse in den Publ. d. Astrophys. Obs. Potsdam No. 58

heller Stern: 1931.0 $\Delta\alpha = +0^s.333$ $\Delta\delta = +0''.49$

1932.0 $= +0.305$ $= +0.10$

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
562	[3 Serpentis]	5.44	K 0	15 11 45.466	+2.9815	− 12	+ 5 11 39.66	−13.435	− 7
561	[β Circini]	4.16	A 3	15 12 5.756	+4.6839	−130	−58 32 42.33	−13.555	− 149
560	γ Triang. austr.	3.06	A 0	15 12 26.454	+5.5787	−101	−68 25 35.35	−13.420	− 37
563	δ Bootis	3.54	K 0	15 12 43.261	+2.4193	+ 73	+33 34 16.60	−13.487	− 121
564	β Librae	2.74	B 8	15 13 17.460	+3.2269	− 64	− 9 7 46.27	−13.355	− 27
565	1 H. Urs. min.	5.23	G 0	15 13 50.360	+0.6839	+387	+67 36 30.40	−13.687	− 396
566	φ¹ Lupi	3.59	K 5	15 17 25.224	+3.8017	− 82	−36 0 44.77	−13.151	− 95
569	γ Ursae min.	3.14	A 2	15 20 49.420	−0.1053	− 32	+72 4 46.22	−12.813	+ 16
568	μ Bootis	4.47 6.66	F 0 K 0	15 21 53.000	+2.2663	−123	+37 37 5.69	−12.677	+ 80
570	[τ¹ Serpentis]	5.46	M a	15 22 35.315	+2.7820	− 11	+15 40 10.06	−12.733	− 24
571	ι Draconis	3.47	K 0	15 23 23.535	+1.3336	− 5	+59 12 26.09	−12.641	+ 14
567	[κ¹ Apodis]	5.65	B 5 p	15 23 57.168	+6.5022	+ 5	−73 9 9.06	−12.655	− 37
572	β Coron. bor.	3.72	F 0 p	15 24 59.043	+2.4740	−131	+29 20 33.12	−12.472	+ 76
573	ν¹ Bootis	5.15	K 5	15 28 27.027	+2.1550	+ 10	+41 4 2.60	−12.322	− 13
576	[ϑ Coron. bor.]	4.17	B 5	15 30 8.797	+2.4189	− 17	+31 35 27.25	−12.218	− 26
574	[ε Triang. austr.]	4.11	K 0	15 30 22.878	+5.4698	+ 29	−66 5 13.42	−12.257	− 82
575	γ Lupi	2.95	B 3	15 30 32.032	+3.9915	− 26	−40 56 10.76	−12.205	− 39
577	γ Librae	4.02	K 0	15 31 39.777	+3.3541	+ 43	−14 33 38.29	−12.083	+ 3
578	α Coron. bor.	2.31	A 0	15 31 45.955	+2.5401	+ 93	+26 56 45.04	−12.177	− 98
579	[3 H. Scorpii]	3.78	K 2	15 32 49.788	+3.6385	− 11	−27 54 28.66	−12.015	− 11
580	[φ Bootis]	5.41	G 5	15 35 20.907	+2.1548	+ 58	+40 34 37.76	−11.776	+ 52
581	[γ Coron. bor.]	3.93	A 0	15 39 50.694	+2.5197	− 74	+26 30 47.08	−11.474	+ 34
582	α Serpentis	2.75	K 0	15 40 52.060	+2.9542	+ 91	+ 6 38 29.53	−11.392	+ 42
583	β Serpentis	3.74	A 2	15 43 0.137	+2.7688	+ 51	+15 38 11.66	−11.335	− 54
587	[12 H. Dracon.]	5.13	A 2	15 45 36.589	+0.9115	+ 55	+62 48 44.51	−11.153	− 61
584	κ Serpentis	4.28	K 5	15 45 37.989	+2.7005	− 31	+18 21 12.48	−11.188	− 98
585	μ Serpentis	3.63	A 0	15 46 1.010	+3.1297	− 59	− 3 13 13.26	−11.094	− 32
590	ζ Ursae min.	4.34	A 2	15 46 28.935	−2.1742	+ 60	+78 0 27.36	−11.029	− 1
586	[χ Lupi]	4.11	B 9	15 46 34.061	+3.8078	− 15	−33 25 5.95	−11.052	− 30
588	ε Serpentis	3.75	A 2	15 47 22.482	+2.9897	+ 84	+ 4 41 3.13	−10.903	+ 59
589	β Triang. austr.	3.04	F 0	15 49 2.736	+5.2721	−278	−63 13 10.81	−11.247	− 407
591	[γ Serpentis]	3.86	F 5	15 53 15.881	+2.7706	+213	+15 53 8.02	−11.822	−1294
592	[π Scorpii]	3.00	B 2	15 54 40.350	+3.6261	− 15	−25 55 1.32	−10.460	− 37
593	ε Coron. bor.	4.22	K 0	15 54 43.788	+2.4832	− 61	+27 4 35.69	−10.487	− 68
595	[Grb 2296]	4.96	A 5	15 56 9.017	+1.4211	−187	+54 56 38.83	−10.202	+ 111
594	δ Scorpii	2.54	B 0	15 56 14.965	+3.5452	− 8	−22 25 36.74	−10.341	− 36
598	ϑ Draconis	4.11	F 8	16 0 35.622	+1.1228	−402	+58 44 56.70	− 9.638	+ 339
597	β Scorpii	2.90 5.06	B 1	16 1 25.256	+3.4861	− 7	−19 37 5.00	− 9.941	− 27
596	[δ Normae]	4.84	A 3 p	16 1 36.371	+4.2338	− 5	−44 59 16.37	− 9.894	+ 6
599	[ϑ Lupi]	4.33	B 3	16 2 3.256	+3.9344	− 29	−36 36 57.71	− 9.907	− 41

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
601	[φ Herculis]	4.26	B 9 p	16 6 35.686	+1.8899	— 23	+45 6 53.73	—9.487	+ 31
600	[ϰ Normae]	5.09	K o	16 8 1.387	+4.7201	— 42	—54 27 15.27	—9.474	— 65
602	[δ Triang. austr.]	4.03	G o	16 9 8.500	+5.4476	+ 8	—63 30 41.41	—9.348	— 26
603	δ Ophiuchi	3.03	M a	16 10 43.651	+3.1429	— 30	— 3 31 4.94	—9.349	—150
606	19 Ursae min.	5.51	B 8	16 12 45.983	—1.7295	— 4	+76 3 7.15	—9.028	+ 12
604	γ^2 Normae	4.14	K o	16 14 40.007	+4.4806	—190	—49 59 16.92	—8.953	— 61
605	ε Ophiuchi	3.34	K o	16 14 40.081	+3.1730	+ 53	— 4 31 32.66	—8.860	+ 31
607	[σ Scorpii]	3.08	B 1	16 16 59.412	+3.6440	— 11	—25 25 43.87	—8.742	— 33
608	τ Herculis	3.91	B 5	16 17 39.941	+1.8030	— 9	+46 28 36.59	—8.623	+ 32
609	γ Herculis	3.79	F o	16 18 52.498	+2.6458	— 36	+19 18 50.40	—8.520	+ 40
612	[η Ursae min.]	5.04	F o	16 19 29.868	—1.7710	—219	+75 54 54.32	—8.255	+256
610	[ζ Triang. austr.]	4.93	G o	16 21 1.223	+6.4315	+366	—69 55 53.49	—8.306	+ 84
613	[ω Herculis]	4.53	A o p	16 22 13.816	+2.7681	+ 28	+14 11 26.86	—8.362	— 68
611	γ Apodis	3.90	K o	16 22 48.537	+9.1550	—384	—78 44 44.56	—8.319	— 71
614	[Grb 2343]	5.66	A 2	16 22 54.690	+1.3116	+ 19	+55 21 40.99	—8.221	+ 18
615	η Draconis	2.89	G 5	16 23 3.138	+0.8099	— 28	+61 40 12.16	—8.168	+ 61
616	α Scorpii	1.22	M a + A 3	16 25 10.370	+3.6764	— 7	—26 16 49.69	—8.087	— 28
618	β Herculis	2.81	K o	16 27 15.167	+2.5787	— 69	+21 38 19.55	—7.913	— 21
617	[λ Ophiuchi]	3.85	A o	16 27 25.891	+3.0249	— 23	+ 2 8 0.40	—7.968	— 90
619	*A* Draconis	4.98	B 8 p	16 28 6.538	—0.1235	— 51	+68 55 2.87	—7.788	+ 35
620	[τ Scorpii]	2.91	B o	16 31 34.970	+3.7322	— 11	—28 4 28.29	—7.576	— 33
621	σ Herculis	4.25	A o	16 31 52.680	+1.9341	— 6	+42 34 42.28	—7.480	+ 38
622	ζ Ophiuchi	2.70	B o	16 33 21.427	+3.3024	+ 9	—10 25 43.62	—7.376	+ 22
623	[Grb 2373]	6.39	G 5	16 33 34.975	—2.6029	—321	+77 35 5.66	—7.106	+274
624	[24 Scorpii]	5.04	K o	16 37 34.762	+3.4681	— 18	—17 36 36.32	—7.057	— 3
626	η Herculis	3.61	K o	16 40 31.794	+2.0568	+ 35	+39 3 9.31	—6.896	— 84
625	α Triang. austr.	1.88	K 2	16 41 20.398	+6.3379	+ 32	—68 54 13.45	—6.794	— 49
627	Grb 2377	4.88	F o	16 43 59.173	+1.1373	+ 28	+56 54 16.36	—6.469	+ 58
628	ε Scorpii	2.36	K o	16 45 41.360	+3.8827	—501	—34 10 10.48	—6.641	—255
629	49 Herculis	6.41	A o p	16 48 56.311	+2.7310	+ 12	+15 5 19.18	—6.122	— 6
630	ζ^2 Scorpii	3.75	K 5	16 49 43.277	+4.2165	—133	—42 14 41.75	—6.289	—238
631	ζ Arae	3.06	K 5	16 52 54.129	+4.9585	— 30	—55 52 59.83	—5.832	— 48
632	[ε^1 Arae]	4.15	K 2	16 54 4.547	+4.7749	— 19	—53 3 23.79	—5.695	— 8
633	ϰ Ophiuchi	3.42	K o	16 54 24.061	+2.8390	—198	+ 9 28 51.50	—5.672	— 13
634	ε Herculis	3.92	A o	16 57 38.940	+2.2952	— 35	+31 1 36.93	—5.362	+ 24
635	[60 Herculis]	4.91	A 3	17 2 10.646	+2.7815	+ 34	+12 50 3.34	—5.019	— 15
636	[Grb 2415]	6.27	A 2	17 5 31.639	+1.9567	— 29	+40 36 19.36	—4.748	— 28
637	η Ophiuchi	2.63	A 2	17 6 25.118	+3.4392	+ 23	—15 38 27.74	—4.553	+ 90
638	[η Scorpii]	3.44	F 2	17 7 12.420	+4.2942	+ 17	—43 9 0.40	—4.875	—298
639	ζ Draconis	3.22	B 5	17 8 34.986	+0.1713	— 29	+65 47 58.27	—4.438	+ 22

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
640	α Herculis	M 3.48 5.39	M b	17h 11m 30s.013	+2s.7350	— 8	+14° 28′ 3″.53	−4″.181	+ 29
641	δ Herculis	3.16	A 2	17 12 11.805	+2.4641	— 15	+24 55 9.93	−4.309	−159
643	π Herculis	3.36	K 5	17 12 38.590	+2.0894	— 21	+36 53 9.34	−4.111	+ 1
642	[ι Apodis]	5.60	B 8	17 14 23.311	+6.6810	— 14	−70 3 12.63	−3.989	— 27
644	ϑ Ophiuchi	3.37	B 3	17 17 46.166	+3.6829	— 7	−24 55 56.27	−3.697	— 25
645	β Arae	2.80	K 2	17 19 33.534	+4.9833	— 14	−55 28 0.87	−3.560	— 42
646	[d Ophiuchi]	4.37	F 5	17 22 56.725	+3.8291	+ 6	−29 48 22.60	−3.372	−145
647	[27 H. Ophiuchi]	4.61	F 0	17 22 58.158	+3.1831	— 58	— 5 1 37.61	−3.275	— 51
648	δ Arae	3.79	B 8	17 24 51.904	+5.4124	— 70	−60 37 42.65	−3.162	−101
650	[x Herculis]	5.81	A 2	17 24 54.463	+1.5900	+ 2	+48 19 1.21	−3.076	— 19
649	[υ Scorpii]	2.80	B 3	17 26 4.063	+4.0753	— 24	−37 14 33.35	−2.996	— 39
651	α Arae	2.97	B 3 p	17 26 30.232	+4.6348	— 38	−49 49 25.14	−3.013	— 94
653	β Draconis	2.99	G 0	17 28 52.366	+1.3552	— 15	+52 21 6.36	−2.704	+ 10
652	λ Scorpii	1.71	B 2	17 28 55.184	+4.0713	— 14	−37 3 18.83	−2.742	— 32
655	[ν¹ Draconis]	4.98	A 5	17 30 48.999	+1.1812	+176	+55 13 50.77	−2.495	+ 51
657	[ν² Draconis]	4.95	A 5	17 30 54.428	+1.1825	+181	+55 13 9.61	−2.486	+ 52
656	α Ophiuchi	2.14	A 5	17 31 43.828	+2.7842	+ 80	+12 36 31.99	−2.699	−233
659	[f Draconis]	5.21	K 0	17 32 14.186	−0.2433	— 33	+68 10 44.71	−2.288	+134
654	ϑ Scorpii	2.04	F 0	17 32 21.428	+4.3081	0	−42 57 21.37	−2.430	— 18
658	ξ Serpentis	3.64	A 5	17 33 38.036	+3.4340	— 34	−15 21 24.16	−2.365	— 65
664	ω Draconis	4.87	F 5	17 37 21.154	−0.3526	+ 10	+68 47 24.06	−1.654	+323
663	ι Herculis	3.79	B 3	17 37 30.977	+1.6933	— 5	+46 2 31.57	−1.967	— 4
660	[κ Scorpii]	2.51	B 2	17 37 42.693	+4.1483	— 15	−38 59 46.20	−1.973	— 26
662	[μ Arae]	5.26	G 5	17 38 39.758	+4.7608	— 29	−51 47 57.97	−2.072	−208
661	η Pavonis	3.58	K 0	17 38 57.326	+5.8849	— 22	−64 41 35.51	−1.894	— 56
665	β Ophiuchi	2.94	K 0	17 40 3.781	+2.9632	— 27	+ 4 35 40.77	−1.588	+153
666	[ι¹ Scorpii]	3.14	F 5 p	17 42 45.353	+4.1940	— 10	−40 6 7.13	−1.509	— 3
670	ψ Draconis	4.90 6.07	F 5	17 43 9.658	−1.0706	+ 31	+72 10 59.51	−1.738	−267
667	μ Herculis	3.48	G 5	17 43 45.404	+2.3473	−240	+27 45 35.64	−2.170	−751
668	[γ Ophiuchi]	3.74	A 0	17 44 25.925	+3.0077	— 16	+ 2 43 54.49	−1.438	— 77
669	[G Scorpii]	3.25	K 2	17 45 9.589	+4.0828	+ 41	−37 1 23.18	−1.271	+ 26
671	ξ Draconis	3.90	K 0	17 52 20.124	+1.0375	+120	+56 52 58.62	−0.594	+ 77
675	35 Draconis	5.04	F 5	17 52 32.100	−2.6886	+112	+76 58 23.26	−0.411	+241
672	ϑ Herculis	3.99	K 0	17 53 53.167	+2.0572	+ 4	+37 15 31.21	−0.530	+ 5
676	γ Draconis	2.42	K 5	17 55 0.198	+1.3927	— 9	+51 29 46.69	−0.459	— 22
674	[ξ Herculis]	3.82	K 0	17 55 4.986	+2.3312	+ 66	+29 15 14.74	−0.455	— 25
673	ν Ophiuchi	3.50	K 0	17 55 13.621	+3.3022	— 7	— 9 45 59.82	−0.535	−118
677	67 Ophiuchi	3.92	B 5 p	17 57 11.321	+3.0044	0	+ 2 56 0.46	−0.259	— 13
679	γ Sagittarii	3.07	K 0	18 1 22.454	+3.8530	— 47	−30 25 36.15	−0.074	−194
678	[Apodis 66 G.]	5.69	K 5	18 1 36.195	+8.3869	— 44	−75 53 46.72	−0.129	−270

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0s.0001	Dekl. 1931.0	Jährl. Verände-rung	Jährl. Eigen-bew. in 0".001
		M		h m s	s		° ' "	"	
680	72 Ophiuchi	3.73	A	18 4 4.670	+2.8439	— 42	+ 9 33 9.68	+0.435	+ 78
681	o Herculis	3.83	A o	18 4 51.029	+2.3401	+ 2	+28 45 6.40	+0.424	o
682	μ Sagittarii	4.01	B 8 p	18 9 38.175	+3.5873	— 3	—21 4 42.81	+0.839	— 3
683	[η Sagittarii]	3.16	M b	18 12 57.432	+4.0587	— 117	—36 47 2.80	+0.969	—163
684	[Grb 2533]	5.42	B 5	18 13 29.958	+1.8655	— 6	+42 8 5.34	+1.173	— 7
685	[36 Draconis]	5.03	F 5	18 13 29.968	+0.3453	+ 533	+64 22 25.28	+1.210	+ 30
687	[δ Sagittarii]	2.84	K o	18 16 34.591	+3.8408	+ 27	—29 51 32.86	+1.417	— 32
686	[ξ Pavonis]	4.25	K 2	18 16 52.031	+5.5276	— 26	—61 31 38.21	+1.491	+ 17
688	η Serpentis	3.42	K o	18 17 44.332	+3.1036	— 372	— 2 55 5.48	+0.851	—699
689	ε Sagittarii	1.95	A o	18 19 35.518	+3.9822	— 30	—34 25 8.17	+1.584	—127
690	109 Herculis	3.92	K o	18 20 45.432	+2.5563	+ 140	+21 44 13.16	+1.556	—257
693	[φ Draconis]	4.24	A o p	18 21 44.930	—0.8592	— 17	+71 18 5.09	+1.932	+ 33
691	α Telescopii	3.76	B 3	18 21 51.442	+4.4486	— 21	—46 0 29.61	+1.861	— 48
695	χ Draconis	3.69	F 8	18 22 18.145	—1.0810	+1170	+72 42 12.03	+1.585	—362
694	*b* Draconis	4.85	A 2	18 22 54.192	+0.8764	— 45	+58 45 36.87	+2.058	+ 58
692	[λ Sagittarii]	2.94	K o	18 23 42.721	+3.7021	— 37	—25 27 41.34	+1.883	—188
696	[2 H. Scuti]	4.73	A 3	18 25 15.868	+3.4189	— 3	—14 36 40.45	+2.207	+ 2
697	[ϑ Coron. austr.]	4.69	G 5	18 28 34.521	+4.2836	+ 15	—42 21 50.56	+2.469	— 24
700	[Grb 2655]	5.84	K o	18 33 5.559	—2.8902	— 10	+77 29 40.05	+2.881	— 3
699	α Lyrae	0.14	A o	18 34 36.121	+2.0314	+ 176	+38 43 6.36	+3.296	+281
698	ζ Pavonis	4.10	K o	18 34 58.855	+7.0157	— 24	—71 29 25.37	+2.870	—178
701	[Grb 2640]	6.00	A 3	18 36 0.325	+0.1884	+ 18	+65 25 36.59	+3.220	+ 84
702	[5 H. Scuti]	5.09	G 5	18 39 45.789	+3.2672	+ 13	— 8 20 41.31	+3.470	+ 9
703	110 Herculis	4.26	F 5	18 42 41.495	+2.5813	— 12	+20 28 44.46	+3.372	—340
704	λ Pavonis	4.42	B 2	18 45 49.677	+5.5616	— 25	—62 16 8.52	+3.954	— 28
705	*β Lyrae	var.	B 8 p +B2p	18 47 31.930	+2.2149	+ 3	+33 16 53.69	+4.126	— 2
707	o Draconis	4.78	K o	18 50 11.074	+0.8863	+ 105	+59 18 12.82	+4.379	+ 25
706	σ Sagittarii	2.14	B 3	18 50 59.238	+3.7199	+ 4	—26 23 2.93	+4.360	— 63
709	ϑ Serpent. pr.	4.50	A 5	18 52 47.354	+2.9823	+ 29	+ 4 6 44.59	+4.604	+ 28
708	λ Telescopii	5.03	B 9	18 52 56.743	+4.8014	+ 3	—53 1 50.25	+4.604	+ 14
711	**R* Lyrae	var.	M b	18 53 14.154	+1.8263	+ 28	+43 51 15.33	+4.690	+ 76
710	[ξ Sagittarii]	3.61	K o	18 53 36.843	+3.5788	+ 18	—21 11 56.25	+4.630	— 16
714	[υ Draconis]	4.91	K o	18 55 14.973	—0.7297	+ 103	+71 12 18.90	+4.826	+ 40
713	γ Lyrae	3.30	A o p	18 56 21.716	+2.2439	— 4	+32 35 37.81	+4.878	— 2
712	[ε Aquilae]	4.21	K o	18 56 29.406	+2.7221	— 42	+14 58 23.74	+4.811	— 80
715	[ζ Sagittarii]	2.71	A 2	18 58 13.340	+3.8170	— 21	—29 58 49.23	+5.039	+ 2
716	ζ Aquilae	3.02	A o	19 2 14.298	+2.7570	— 7	+13 45 34.45	+5.276	—101
717	λ Aquilae	3.55	B 9	19 2 35.239	+3.1836	— 16	— 4 59 14.63	+5.319	— 87
718	α Coron. austr.	4.12	A 2	19 4 46.753	+4.0819	+ 59	—38 0 49.60	+5.481	—109
719	[ι Lyrae]	5.13	B 5	19 4 50.355	+2.1407	— 3	+35 59 27.55	+5.592	— 3

Nr. 705. Größe: Max. 3.4, Min. 4.1 Nr. 711. Größe: Max. 4.0, Min. 4.7, Größe in Harvard 50 = 4.32

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ′ ″	″	
720	π Sagittarii	3.02	F 2	19 5 39.666	+3.5679	− 5	−21 8 5.49	+ 5.629	− 35
721	[Pavonis 60 G.]	5.57	A 2	19 10 16.442	+6.0421	− 7	−66 46 57.41	+ 6.029	− 21
723	δ Draconis	3.24	K 0	19 12 32.650	+0.0177	+ 167	+67 32 24.36	+ 6.327	+ 88
722	[*d* Sagittarii]	5.03	K 0	19 13 35.929	+3.5102	− 12	−19 4 37.71	+ 6.318	− 9
724	ϑ Lyrae	4.46	K 0	19 13 58.346	+2.0817	− 7	+38 0 35.40	+ 6.357	− 1
725	ω Aquilae	5.14	A 5	19 14 34.651	+2.8157	− 3	+11 28 10.95	+ 6.421	+ 13
726	κ Cygni	3.98	K 0	19 15 30.540	+1.3871	+ 69	+53 14 25.60	+ 6.605	+ 119
729	τ Draconis	4.63	K 0	19 16 53.440	−1.1463	− 326	+73 13 40.46	+ 6.709	+ 109
727	[υ Sagittarii]	4.58	B 8 p + F 2 p	19 17 46.604	+3.4363	0	−16 5 9.31	+ 6.670	− 2
728	α Sagittarii	4.11	B 8	19 19 6.484	+4.1581	+ 18	−40 44 50.63	+ 6.664	− 118
730	δ Aquilae	3.44	F 0	19 22 1.167	+3.0246	+ 167	+ 2 58 33.12	+ 7.103	+ 81
731	[Sagittar. 186 G.]	5.68	B 9	19 22 34.951	+3.7922	+ 7	−29 52 52.38	+ 7.020	− 47
734	[Grb 2900]	6.00	A 2	19 25 54.215	−3.6047	+ 96	+79 27 57.66	+ 7.303	− 35
732	*β Cygni	3.24	K 0 + A 0	19 27 56.290	+2.4191	− 2	+27 48 49.06	+ 7.496	− 8
733	ι Cygni	3.94	A 2	19 27 58.012	+1.5129	+ 22	+51 34 55.23	+ 7.631	+ 125
735	[ι Telescopii]	5.02	K 0	19 30 6.015	+4.4517	− 41	−48 14 58.77	+ 7.639	− 40
736	*h* Sagittarii	4.66	B 9	19 32 30.603	+3.6515	+ 46	−25 2 14.67	+ 7.851	− 22
737	[κ Aquilae]	5.04	B 0	19 33 10.824	+3.2279	+ 3	− 7 10 55.91	+ 7.927	0
738	ϑ Cygni	4.64	F 5	19 34 35.450	+1.6081	− 29	+50 3 37.58	+ 8.287	+ 247
740	[15 Cygni]	5.02	K 0	19 41 47.261	+2.1633	+ 59	+37 11 12.29	+ 8.648	+ 36
739	[ν Telescopii]	5.52	A 5	19 42 23.550	+4.9043	+ 86	−56 31 48.85	+ 8.524	− 137
742	δ Cygni	2.97	A 0	19 42 49.124	+1.8756	+ 51	+44 57 41.12	+ 8.733	+ 40
741	γ Aquilae	2.80	K 2	19 42 58.750	+2.8519	+ 9	+10 26 38.13	+ 8.706	0
743	δ Sagittae	3.78	M a + A 0	19 44 18.652	+2.6749	+ 4	+18 21 46.53	+ 8.824	+ 13
744	[51 Aquilae]	5.55	F 0	19 46 59.093	+3.3015	− 21	−10 56 23.30	+ 9.062	+ 41
745	α Aquilae	0.89	A 5	19 47 24.994	+2.9268	+ 360	+ 8 41 5.52	+ 9.438	+ 383
747	ε Draconis	3.99	K 0	19 48 24.961	−0.1961	+ 156	+70 5 31.76	+ 9.162	+ 30
746	*[η Aquilae]	var.	G 0 p	19 48 57.517	+3.0564	+ 6	+ 0 49 38.10	+ 9.166	− 9
749	β Aquilae	3.90	K 0	19 51 55.427	+2.9465	+ 25	+ 6 13 59.56	+ 8.925	− 480
748	ε Pavonis	4.10	A 0	19 52 38.477	+6.9641	+ 148	−73 5 42.43	+ 9.328	− 132
750	ψ Cygni	4.80	A 3	19 53 50.780	+1.5511	− 43	+52 15 18.24	+ 9.522	− 31
751	ϑ¹ Sagittarii	4.39	B 3	19 55 14.869	+3.9058	− 12	−35 27 52.05	+ 9.625	− 36
752	γ Sagittae	3.71	K 5	19 55 41.282	+2.6675	+ 43	+19 18 13.04	+ 9.718	+ 24
753	[*c* Sagittarii]	4.60	M b	19 58 25.078	+3.6903	+ 21	−27 54 11.14	+ 9.920	+ 18
754	δ Pavonis	3.64	G 5	20 1 58.447	+5.8998	+1963	−66 21 36.99	+ 9.011	−1160
755	[ξ Telescopii]	4.86	M a	20 2 6.315	+4.6005	− 44	−53 4 48.40	+10.179	− 2
756	ϑ Aquilae	3.37	A 0	20 7 44.716	+3.0954	+ 22	− 1 1 38.53	+10.608	+ 6
759	κ Cephei	4.40	B 9	20 11 14.713	−1.9937	+ 12	+77 30 15.93	+10.888	+ 27
757	o¹ Cygni sq.	3.95	K 0 + B 8	20 11 27.529	+1.8892	+ 4	+46 31 52.45	+10.878	+ 1
758	[33 Cygni]	4.32	A 3	20 11 47.696	+1.3953	+ 74	+56 21 21.95	+10.987	+ 85

Nr. 732. Größe und Spektrum beziehen sich auf die hellere Komponente. Die entsprechenden Werte für die schwächere Komponente sind 5.36 und B9. Nr. 746. Größe: Max. 3.7, Min. 4.5

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
760	24 Vulpeculae	5.45	K 0	20 13 49.920	+2.5671	+ 12	+24 27 26.94	+11.032	− 19
761	α² Capricorni	3.77	G 5	20 14 13.670	+3.3291	+ 40	−12 45 35.61	+11.091	+ 11
762	[β Capricorni]	3.25	G 0 + A 0	20 17 8.167	+3.3710	+ 23	−15 0 1.87	+11.297	+ 6
763	[κ¹ Sagittarii]	5.64	A 0	20 17 46.790	+4.0783	+ 37	−42 16 6.86	+11.241	− 96
765	γ Cygni	2.32	F 8 p	20 19 45.079	+2.1529	+ 4	+40 2 5.88	+11.479	0
764	α Pavonis	2.12	B 3	20 20 12.043	+4.7558	+ 11	−56 57 27.85	+11.426	− 85
766	[ρ Capricorni]	4.96	F 0	20 24 55.618	+3.4227	− 14	−18 2 34.67	+11.831	− 16
767	ϑ Cephei	4.28	A 5	20 28 25.627	+1.0089	+ 63	+62 45 42.31	+12.079	− 14
768	ε Delphini	3.98	B 5	20 29 54.989	+2.8660	+ 5	+11 4 3.40	+12.171	− 25
770	73 Draconis	5.18	A 2 p	20 32 26.370	−0.7738	+ 16	+74 43 6.44	+12.359	− 12
769	α Indi	3.21	K 0	20 32 43.210	+4.2239	+ 33	−47 32 0.90	+12.450	+ 60
771	β Delphini	3.72	F 5	20 34 18.795	+2.8130	+ 74	+14 21 14.48	+12.463	− 36
772	[κ Delphini]	5.23	G 5	20 35 46.686	+2.9138	+ 212	+ 9 50 31.46	+12.617	+ 18
773	υ Capricorni	5.33	M a	20 36 7.455	+3.4161	− 17	−18 22 58.07	+12.607	− 16
774	α Delphini	3.86	B 8	20 36 25.986	+2.7865	+ 45	+15 40 3.11	+12.638	− 6
775	β Pavonis	3.60	A 5	20 38 45.784	+5.4254	− 71	−66 27 10.79	+12.803	+ 1
776	[η Indi]	4.70	F 0	20 38 58.853	+4.4117	+ 157	−52 10 8.67	+12.743	− 73
777	α Cygni	1.33	A 2 p	20 39 4.745	+2.0450	+ 4	+45 1 58.64	+12.822	− 1
778	[δ Delphini]	4.53	A 5	20 40 14.252	+2.8008	− 14	+14 49 33.39	+12.853	− 48
779	[ψ Capricorni]	4.26	F 8	20 42 0.805	+3.5536	− 44	−25 31 12.50	+12.861	− 157
780	ε Cygni	2.64	K 0	20 43 25.128	+2.4275	+ 290	+33 42 39.31	+13.439	+ 328
782	[6 H. Cephei]	4.63	G 0	20 43 38.401	+1.4893	− 87	+57 19 53.56	+12.892	− 234
783	η Cephei	3.59	K 0	20 43 53.353	+1.2223	+ 131	+61 34 13.10	+13.962	+ 819
781	ε Aquarii	3.83	A 0	20 43 56.531	+3.2480	+ 17	− 9 44 57.91	+13.118	− 28
784	λ Cygni	4.47	B 5	20 44 43.197	+2.3364	+ 5	+36 14 11.02	+13.197	0
785	β Indi	3.72	K 0	20 49 25.753	+4.6980	0	−58 42 57.35	+13.478	− 27
786	32 Vulpeculae	5.24	K 5	20 51 37.115	+2.5566	− 4	+27 47 39.51	+13.647	+ 1
788	ν Cygni	4.04	A 0	20 54 35.990	+2.2362	+ 9	+40 54 2.33	+13.818	− 17
787	[α Octantis]	5.24	F 2	20 56 25.252	+7.3256	− 13	−77 17 20.08	+13.595	− 355
789	[11 Aquarii]	6.26	G 0	20 56 55.887	+3.1590	+ 23	− 4 59 52.23	+13.850	− 133
790	ζ Microscopii	5.35	F 0	20 58 33.708	+3.8366	− 36	−38 54 8.09	+13.962	− 122
792	[ξ Cygni]	3.92	K 5	21 2 25.226	+2.1822	+ 12	+43 39 6.25	+14.320	− 3
791	[A Capricorni]	4.60	M a	21 3 5.686	+3.5102	− 30	−25 16 58.26	+14.317	− 47
793	61 Cygni pr.	5.57	K 5	21 3 48.128	+2.6868	+3505	+38 24 33.27	+17.663	+3256
794	ν Aquarii	4.52	K 0	21 5 50.263	+3.2690	+ 62	−11 39 7.45	+14.520	− 9
795	Br 2777	5.90	B 9	21 6 54.773	−1.1731	+ 74	+77 50 49.16	+14.630	+ 36
797	ζ Cygni	3.40	K 0	21 9 59.909	+2.5528	− 1	+29 56 34.90	+14.720	− 59
798	[Grb 3415]	5.65	B 2	21 10 2.882	+1.5276	− 6	+59 42 8.24	+14.779	− 2
796	[Indi 23 G.]	5.84	A 5	21 10 50.577	+4.2884	− 19	−53 33 1.04	+14.782	− 46
799	[τ Cygni]	3.82	F 0	21 12 2.134	+2.3944	+ 137	+37 45 0.47	+15.333	+ 435

Mittlere Sternörter 1931.0

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0".001
		M		h m s	s		° ' "	"	
800	α Equulei	4.14	F 8 + A 3	21 12 22.512	+2.9992	+ 38	+ 4 57 41.72	+14.830	− 87
801	[4 Pis . austr.]	4.79	A 0	21 13 45.501	+3.6403	+ 35	−32 27 43.10	+14.972	− 26
802	[ϑ¹ Microscop.]	4.92	A 2 p	21 16 21.287	+3.8434	+ 70	−41 6 7.56	+15.162	+ 14
803	α Cephei	2.60	A 5	21 16 56.030	+1.4327	+ 212	+62 17 33.93	+15.231	+ 50
804	1 Pegasi	4.24	K 0	21 18 53.688	+2.7742	+ 74	+19 30 30.10	+15.353	+ 61
805	γ Pavonis	4.30	F 8	21 20 45.623	+4.9788	+ 129	−65 40 47.66	+16.186	+ 788
806	ζ Capricorni	3.86	G 5 p	21 22 43.869	+3.4271	− 1	−22 42 40.51	+15.530	+ 23
807	[g Cygni]	5.34	K 0	21 26 54.110	+2.2135	+ 48	+46 14 8.22	+15.839	+ 103
809	β Cephei	3.32	B 1	21 27 46.651	+0.7797	+ 20	+70 15 27.24	+15.790	+ 7
808	β Aquarii	3.07	G 0	21 27 55.668	+3.1587	+ 11	− 5 52 32.23	+15.786	− 5
810	ν Octantis	3.74	K 0	21 33 52.291	+6.7341	+ 134	−77 41 53.60	+15.850	− 256
811	74 Cygni	5.09	A 5	21 34 10.892	+2.4039	− 3	+40 6 10.18	+16.134	+ 12
812	[γ Capricorni]	3.80	F 0 p	21 36 16.249	+3.3254	+ 131	−16 58 29.32	+16.214	− 16
813	[13 H. Cephei]	5.64	Oe 5	21 36 49.166	+1.8620	+ 7	+57 10 35.46	+16.260	+ 2
815	ε Pegasi	2.54	K 0	21 40 47.812	+2.9463	+ 18	+ 9 33 28.06	+16.459	0
814	[ι Pisc.austr.]	4.35	A 0	21 40 50.475	+3.5763	+ 18	−33 20 29.33	+16.372	− 89
817	[11 Cephei]	4.85	K 0	21 40 55.052	+0.8839	+ 234	+70 59 36.44	+16.563	+ 98
816	[κ Pegasi]	4.27	F 5	21 41 31.154	+2.7161	+ 25	+25 19 37.56	+16.505	+ 10
818	[λ Capricorni]	5.43	A 0	21 42 49.387	+3.2306	+ 20	−11 41 5.87	+16.556	− 4
819	δ Capricorni	2.98	A 5	21 43 14.087	+3.3124	+ 178	−16 26 28.56	+16.286	− 294
821	π² Cygni	4.26	B 3	21 44 14.540	+2.2158	+ 8	+48 59 22.60	+16.626	− 4
820	[ο Indi]	5.50	K 2	21 44 58.651	+5.0990	− 87	−69 57 6.87	+16.644	− 21
822	γ Gruis	3.16	B 8	21 49 45.359	+3.6362	+ 77	−37 41 25.06	+16.875	− 18
823	16 Pegasi	5.05	B 3	21 49 55.275	+2.7292	+ 4	+25 35 59.24	+16.903	+ 1
824	[δ Indi]	4.56	F 0	21 53 14.001	+4.0919	+ 43	−55 19 18.79	+17.026	− 29
826	[20 Pegasi]	5.66	F 2	21 57 43.615	+2.9222	+ 36	+12 47 19.06	+17.205	− 54
825	[ε Indi]	4.74	K 5	21 58 5.751	+4.6003	+4809	−57 4 14.57	+14.699	−2576
827	α Aquarii	3.19	G 0	22 2 14.433	+3.0814	+ 10	− 0 39 20.83	+17.449	− 7
828	ι Aquarii	4.35	B 8	22 2 42.768	+3.2409	+ 24	−14 12 18.49	+17.425	− 51
830	20 Cephei	5.39	K 5	22 2 54.596	+1.8227	+ 22	+62 26 54.89	+17.545	+ 60
831	[ι Pegasi]	3.96	F 5	22 3 47.832	+2.7921	+ 219	+25 0 26.56	+17.545	+ 22
829	α Gruis	2.16	B 5	22 3 53.569	+3.7873	+ 119	−47 17 46.51	+17.355	− 171
832	[μ Pisc. austr.]	4.62	A 2	22 4 21.665	+3.5018	+ 41	−33 19 33.88	+17.506	− 41
833	[27 Pegasi]	5.65	K 0	22 6 10.090	+2.6578	− 42	+32 50 4.70	+17.557	− 65
834	ϑ Pegasi	3.70	A 2	22 6 43.157	+3.0263	+ 184	+ 5 51 27.71	+17.676	+ 31
835	π Pegasi	4.38	F 5	22 6 55.249	+2.6635	− 9	+32 50 20.48	+17.635	− 19
836	ζ Cephei	3.62	K 0	22 8 27.441	+2.0795	+ 14	+57 51 38.25	+17.723	+ 6
837	24 Cephei	4.99	G 5	22 8 29.092	+1.1551	+ 54	+72 0 3.87	+17.726	+ 8
838	[λ Pisc.austr.]	5.40	B 9	22 10 24.360	+3.4030	+ 16	−28 6 34.87	+17.795	− 1
839	[ε Octantis]	5.11	M b	22 12 23.264	+6.8134	+ 137	−80 47 4.08	+17.835	− 40

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0s.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
840	ϑ Aquarii	4.32	K 0	22 13 11.648	+3.1663	+ 76	− 8 7 39.12	+17.888	− 19
841	α Tucanae	2.91	K 2	22 13 47.431	+4.1234	− 98	−60 36 15.96	+17.881	− 49
842	γ Aquarii	3.97	A 0	22 18 5.576	+3.0987	+ 83	− 1 44 8.64	+18.102	+ 7
843	[31 Pegasi]	4.93	B 3 p	22 18 7.236	+2.9522	− 1	+11 51 24.90	+18.105	+ 9
844	3 Lacertae	4.58	K 0	22 20 50.581	+2.3573	− 15	+51 52 58.02	+18.007	−191
845	[ν Gruis]	5.48	K 0	22 24 36.881	+3.5204	+ 24	−39 28 53.68	+18.171	−162
846	[δ¹ Gruis]	4.02	G 5	22 25 9.135	+3.5908	+ 17	−43 50 55.72	+18.344	− 8
847	*[δ Cephei]	var.	verän.	22 26 36.301	+2.2250	+ 17	+58 3 41.62	+18.405	+ 2
848	7 Lacertae	3.85	A 0	22 28 26.706	+2.4698	+ 147	+49 55 38.07	+18.483	+ 17
849	[υ Aquarii]	5.29	F 5	22 30 55.360	+3.2834	+ 155	−21 3 44.17	+18.405	−144
850	η Aquarii	4.13	B 8	22 31 48.674	+3.0829	+ 59	− 0 28 25.47	+18.523	− 55
851	[31 Cephei]	5.22	F 0	22 34 3.848	+1.4816	+ 383	+73 17 4.93	+18.675	+ 23
852	10 Lacertae	4.91	Oe 5	22 36 9.721	+2.6905	+ 4	+38 41 26.33	+18.712	− 6
853	[30 Cephei]	5.21	A 2	22 36 11.961	+2.1261	+ 1	+63 13 31.50	+18.698	− 22
854	[ε Pisc.austr.]	4.22	B 8	22 36 50.551	+3.3200	+ 12	−27 24 14.42	+18.741	+ 2
855	ζ Pegasi	3.61	B 8	22 38 1.198	+2.9918	+ 53	+10 28 14.19	+18.763	− 13
856	β Gruis	2.24	M b	22 38 33.230	+3.5875	+ 117	−47 14 46.52	+18.767	− 25
857	η Pegasi	3.10	G 0	22 39 45.904	+2.8110	+ 12	+29 51 35.20	+18.795	− 33
858	[13 Lacertae]	5.24	K 0	22 41 0.615	+2.6735	− 6	+41 27 24.02	+18.871	+ 5
859	λ Pegasi	4.14	K 0	22 43 12.323	+2.8886	+ 41	+23 12 7.36	+18.919	− 10
860	ε Gruis	3.69	A 2	22 44 23.699	+3.6303	+ 96	−51 40 49.11	+18.890	− 73
861	[τ Aquarii]	4.21	K 5	22 45 56.427	+3.1772	− 12	−13 57 26.12	+18.974	− 33
862	[μ Pegasi]	3.67	K 0	22 46 40.245	+2.8946	+ 109	+24 14 12.45	+18.986	− 41
863	ι Cephei	3.68	K 0	22 47 13.094	+2.1314	− 114	+65 50 13.84	+18.919	−123
864	λ Aquarii	3.84	M a	22 49 0.951	+3.1302	+ 5	− 7 56 50.07	+19.129	+ 38
865	ρ Indi	6.14	G 0	22 49 53.008	+4.1957	− 101	−70 26 34.55	+19.176	+ 62
866	δ Aquarii	3.51	A 2	22 50 59.411	+3.1846	− 33	−16 11 17.48	+19.123	− 19
867	α Pisc. austr.	1.29	A 3	22 53 50.475	+3.3172	+ 247	−29 59 17.94	+19.056	−159
868	[ζ Gruis]	4.18	G 5	22 56 48.937	+3.5498	− 80	−53 7 28.71	+19.272	− 16
869	ο Androm.	3.63	B 5 · A 2 p	22 58 44.531	+2.7581	+ 25	+41 57 16.80	+19.320	− 13
870	β Pegasi	2.61	M a	23 0 25.587	+2.9071	+ 145	+27 42 29.24	+19.508	+138
871	α Pegasi	2.57	A 0	23 1 19.322	+2.9874	+ 41	+14 50 0.99	+19.350	− 41
872	ϑ Gruis	4.35	F 5	23 2 59.876	+3.3842	− 52	−43 53 37.26	+19.390	− 38
874	π Cephei	4.56	G 5	23 5 41.853	+1.9040	+ 29	+75 0 51.53	+19.459	− 25
873	ι² Aquarii	3.80	K 0	23 5 46.193	+3.1998	+ 32	−21 32 50.22	+19.522	+ 36
875	Br 3077	5.65	K 2	23 9 57.157	+2.8840	+2533	+56 47 13.52	+19.864	+296
876	[Tucanae 25 G.]	5.69	G 0	23 12 49.511	+3.6179	+ 231	−62 22 40.67	+19.568	− 53
877	γ Tucanae	4.10	F 2	23 13 24.736	+3.5092	− 59	−58 36 51.61	+19.714	+ 82
878	[γ Piscium]	3.85	K 0	23 13 35.265	+3.1096	+ 503	+ 2 54 17.69	+19.653	+ 18
879	γ Sculptoris	4.51	K 0	23 15 6.125	+3.2422	+ 10	−32 54 29.65	+19.593	− 68

Nr. 847. Spektrum wechselt von F 5 bis G 0.

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.0001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
880	τ Pegasi	4.65	A 5	23 17 13.138	+2.9679	+ 21	+23 21 44.23	+19.683	− 13
882	4 Cassiopeiae	5.20	K 5	23 21 45.837	+2.6590	+ 17	+61 54 13.52	+19.756	− 10
881	[υ Pegasi]	4.57	G 0	23 21 55.963	+2.9928	+138	+23 1 26.22	+19.804	+ 35
883	[ο Gruis]	5.54	F 0	23 22 45.213	+3.3606	− 4	−53 6 14.06	+19.899	+119
884	ϰ Piscium	4.94	A 2 p	23 23 23.705	+3.0753	+ 56	+ 0 52 39.43	+19.696	− 93
885	70 Pegasi	4.67	K 0	23 25 39.793	+3.0330	+ 38	+12 22 46.55	+19.847	+ 28
886	[β Sculptoris]	4.46	B 9	23 29 16.528	+3.2200	+ 65	−38 12 0.76	+19.878	+ 14
887	[72 Pegasi]	5.21	K 2	23 30 31.560	+2.9742	+ 40	+30 56 39.60	+19.867	− 12
888	[Aquarii 248 G.]	6.51	K 0	23 31 58.542	+3.0949	− 5	− 7 50 47.28	+19.918	+ 23
889	[Phoenicis 11 G.]	4.86	A 2	23 34 8.415	+3.2328	+ 47	−45 52 28.93	+19.879	− 37
890	[λ Androm.]	4.00	K 0	23 34 10.823	+2.9325	+156	+46 5 2.77	+19.494	−423
891	ι Androm.	4.28	B 8	23 34 44.782	+2.9391	+ 27	+42 53 9.02	+19.918	− 5
892	ι Piscium	4.28	F 8	23 36 24.007	+3.0850	+247	+ 5 15 7.38	+19.498	−440
893	γ Cephei	3.42	K 0	23 36 30.011	+2.4502	−184	+77 14 50.01	+20.096	+157
894	ω² Aquarii	4.62	A 0	23 39 8.729	+3.1117	+ 65	−14 55 35.60	+19.899	− 63
895	41 H. Cephei	5.02	A 0	23 44 35.904	+2.8594	+ 23	+67 25 24.13	+20.000	+ 1
896	Lac. δ Sculpt.	4.64	A 0	23 45 20.064	+3.1264	+ 71	−28 30 43.21	+19.898	−105
897	[Aquarii 268 G.]	6.08	K 0	23 46 41.108	+3.0957	+ 86	−10 21 33.60	+20.097	+ 86
898	φ Pegasi	5.23	M a	23 48 58.481	+3.0503	− 8	+18 44 12.98	+19.982	− 39
899	[ρ Cassiopeiae]	4.85	F 8 p	23 50 55.571	+2.9904	− 7	+57 6 55.78	+20.032	+ 4
900	[27 Piscium]	5.07	K 0	23 55 8.420	+3.0712	− 37	− 3 56 19.77	+19.971	− 68
901	[π Phoenicis]	5.14	K 0	23 55 21.521	+3.1119	+ 30	−53 7 53.60	+20.086	+ 46
902	ω Piscium	4.03	F 5	23 55 45.999	+3.0801	+100	+ 6 28 52.64	+19.931	−109
903	ε Tucanae	4.71	B 9	23 56 20.522	+3.1271	+ 64	−65 57 40.08	+20.009	− 33
904	[ϑ Octantis]	4.73	K 0	23 58 4.265	+3.1015	−219	−77 26 47.99	+19.873	−171

Von den Sternen, deren Namen eingeklammert sind, folgen keine Ephemeriden.

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001

Nördliche Polsterne

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
Na	43 H. Cephei	4.52	K 0	0 58 58.05	+ 7.878	+ 76	+85 53 16.80	+19.383	— 2
Nb	α Ursae min.	2.12	F 8	1 37 25.31	+32.832	+153	+88 56 0.92	+18.261	+ 1
Nc	*Grb 750	6.70	F 8	4 14 11.03	+17.867	+ 16	+85 22 17.48	+ 8.961	+ 32
Nd	51 H. Cephei	5.26	M a	7 8 49.97	+28.750	— 51	+87 9 34.90	— 5.965	— 35
Ne	1 H. Dracon.	4.58	K 2	9 27 23.94	+ 8.679	— 6	+81 38 1.34	—15.783	— 20
Nf	30 H. Camel.	5.34	F 2	10 22 49.82	+ 7.447	— 46	+82 54 39.83	—18.238	+ 31
Ng	ε Ursae min.	4.40	G 5	16 52 58.35	— 6.205	+ 7	+82 9 13.02	— 5.773	+ 6
Nh	δ Ursae min.	4.44	A 0	17 54 28.40	—19.487	+ 15	+86 36 48.22	— 0.426	+ 57
Ni	λ Ursae min.	6.55	M b	18 45 31.03	—74.846	— 99	+89 2 8.06	+ 3.961	+ 6
Nk	76 Draconis	5.69	A 0	20 47 41.73	— 4.242	+ 16	+82 16 38.29	+13.420	+ 27

Nr. Nc. Größe aus Harvard 54 entnommen.

Südliche Polsterne

Nr.	Name	Gr.	Spektrum	AR. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0ˢ.001	Dekl. 1931.0	Jährl. Veränderung	Jährl. Eigenbew. in 0″.001
		M		h m s	s		° ′ ″	″	
Sa	Octantis 4 G.	5.63	K 0	1 41 11.30	— 3.595	+ 18	—85 7 7.29	+18.156	+ 34
Sb	ξ Mensae	5.85	K 0	5 6 39.55	— 6.896	— 4	—82 33 55.68	+ 4.637	+ 14
Sc	ζ Octantis	5.38	F 0	9 7 3.37	— 8.372	— 94	—85 23 21.85	—14.554	+ 49
Sd	ι Octantis	5.38	K 0	12 47 31.97	+ 6.109	+ 42	—84 44 56.87	—19.589	+ 25
Se	Octantis 20 G.	6.52	A 2	14 52 25.29	+27.462	—184	—87 52 18.70	—14.704	— 69
Sf	Octantis 26 G.	6.13	A 0	16 34 47.18	+22.049	+ 5	—86 14 42.96	— 7.284	— 2
Sg	χ Octantis	5.22	K 0	18 14 31.90	+35.642	— 86	—87 39 40.95	+ 1.141	—129
Sh	σ Octantis	5.48	F 0	19 48 58.96	+87.434	+109	—89 11 31.69	+ 9.177	+ 1
Si	β Octantis	4.34	F 0	22 39 7.04	+ 6.230	— 26	—81 44 39.33	+18.811	+ 3
Sk	τ Octantis	5.56	K 0	23 18 26.83	+ 9.547	+ 20	—87 51 42.38	+19.731	+ 15

Scheinbare Sternörter 1931

Tag	1) α Andromedae AR.		1) α Andromedae Dekl.		2) β Cassiopeiae AR.		2) β Cassiopeiae Dekl.		3) ε Phoenicis AR.		3) ε Phoenicis Dekl.		7) γ Pegasi AR.		7) γ Pegasi Dekl.	
1931	$0^h\ 4^m$		+28° 42′		$0^h\ 5^m$		+58° 45′		$0^h\ 5^m$		−46° 7′		$0^h\ 9^m$		+14° 47′	
Jan. 0	48.174	132	40.91	86	27.473	308	83.87	65	54.757	186	59.38	38	40.175	108	61.88	77
10	48.042	125	40.05	111	27.165	296	83.22	118	54.571	171	59.00	86	40.067	103	61.11	88
20	47.917	113	38.94	132	26.869	272	82.04	165	54.400	150	58.14	129	39.964	93	60.23	95
30	47.804	96	37.62	148	26.597	236	80.39	204	54.250	124	56.85	170	39.871	78	59.28	99
Feb. 9	47.708	70	36.14	156	26.361	188	78.35	235	54.126	90	55.15	207	39.793	58	58.29	96
19	47.638	40	34.58	158	26.173	128	76.00	256	54.036	54	53.08	239	39.735	31	57.33	89
März 1	47.598	4	33.00	151	26.045	59	73.44	266	53.982	12	50.69	267	39.704	0	56.44	76
11	47.594	38	31.49	136	25.986	16	70.78	264	53.970	35	48.02	288	39.704	37	55.68	58
21	47.632	83	30.13	116	26.002	96	68.14	251	54.005	83	45.14	305	39.741	76	55.10	35
31	47.715	130	28.97	87	26.098	176	65.63	228	54.088	135	42.09	315	39.817	118	54.75	8
Apr. 10	47.845	176	28.10	55	26.274	252	63.35	195	54.223	186	38.94	319	39.935	160	54.67	22
20	48.021	221	27.55	18	26.526	324	61.40	155	54.409	237	35.75	317	40.095	201	54.89	54
30	48.242	261	27.37	21	26.850	388	59.85	109	54.646	283	32.58	308	40.296	239	55.43	85
Mai 10	48.503	296	27.58	60	27.238	440	58.76	58	54.929	327	29.50	292	40.535	271	56.28	116
20	48.799	323	28.18	99	27.678	480	58.18	6	55.256	363	26.58	269	40.806	298	57.44	144
30	49.122	342	29.17	135	28.158	506	58.12	48	55.619	390	23.89	241	41.104	318	58.88	169
Juni 9	49.464	352	30.52	168	28.664	520	58.60	99	56.009	409	21.48	207	41.422	329	60.57	190
19	49.816	354	32.20	197	29.184	519	59.59	149	56.418	417	19.41	168	41.751	332	62.47	206
29	50.170	346	34.17	220	29.703	504	61.08	194	56.835	415	17.73	124	42.083	327	64.53	217
Juli 9	50.516	330	36.37	237	30.207	478	63.02	234	57.250	402	16.49	79	42.410	313	66.70	223
19	50.846	307	38.74	250	30.685	441	65.36	270	57.652	379	15.70	30	42.723	292	68.93	222
29	51.153	276	41.24	257	31.126	395	68.06	299	58.031	345	15.40	18	43.015	266	71.15	218
Aug. 8	51.429	242	43.81	258	31.521	341	71.05	321	58.376	303	15.58	64	43.281	234	73.33	208
18	51.671	203	46.39	253	31.862	282	74.26	336	58.679	255	16.22	108	43.515	198	75.41	194
28	51.874	162	48.92	245	32.144	220	77.62	346	58.934	201	17.30	146	43.713	160	77.35	178
Sept. 7	52.036	121	51.37	231	32.364	156	81.08	348	59.135	145	18.76	179	43.873	122	79.13	158
17	52.157	80	53.68	215	32.520	92	84.56	343	59.280	87	20.55	204	43.995	84	80.71	137
26	52.237	42	55.83	195	32.612	30	87.99	331	59.367	31	22.59	221	44.079	49	82.08	114
Okt. 6	52.279	7	57.78	170	32.642	30	91.30	313	59.398	22	24.80	227	44.128	16	83.22	92
16	52.286	24	59.48	145	32.612	85	94.43	288	59.376	70	27.07	224	44.144	13	84.14	69
26	52.262	52	60.93	118	32.527	137	97.31	256	59.306	111	29.31	211	44.131	38	84.83	47
Nov. 5	52.210	76	62.11	88	32.390	182	99.87	219	59.195	144	31.42	190	44.093	60	85.30	25
15	52.134	95	62.99	58	32.208	223	102.06	177	59.051	170	33.32	159	44.033	76	85.55	3
25	52.039	111	63.57	27	31.985	257	103.83	128	58.881	187	34.91	123	43.957	89	85.58	16
Dez. 5	51.928	122	63.84	6	31.728	282	105.11	76	58.694	196	36.14	82	43.868	100	85.42	35
15	51.806	128	63.78	37	31.446	299	105.87	23	58.498	199	36.96	36	43.768	105	85.07	53
25	51.678	131	63.41	68	31.147	306	106.10	32	58.299	194	37.32	10	43.663	108	84.54	68
35	51.547		62.73		30.841		105.78		58.105		37.22		43.555		83.86	
Mittl. Ort	48.995		34.29		29.022		69.16		54.763		41.95		40.795		59.75	
sec δ, tg δ	1.140		+0.548		1.929		+1.649		1.443		−1.040		1.034		+0.264	
a, a′	+3.1		+20.0		+3.1		+20.0		+3.0		+20.0		+3.1		+20.0	
b, b′	+0.04		−0.02		+0.11		−0.02		−0.07		−0.03		+0.02		−0.04	

Tag	9) ι Ceti AR.	Δ	9) ι Ceti Dekl.	Δ	10) ζ Tucanae AR.	Δ	10) ζ Tucanae Dekl.	Δ	11) β Hydri AR.	Δ	11) β Hydri Dekl.	Δ	12) α Phoenicis AR.	Δ	12) α Phoenicis Dekl.	Δ
1931	0h 15m		−9° 12′		0h 16m		−65° 16′		0h 22m		−77° 38′		0h 22m		−42° 40′	
Jan. 0	54.389		29.08		29.78		70.02		11.11		55.71		52.655		67.15	
10	54.287	102	29.57	49	29.39	39	69.19	83	10.24	87	54.64	107	52.478	177	67.02	13
20	54.190	97	29.91	34	29.03	36	67.79	140	9.42	82	52.98	166	52.311	167	66.43	59
30	54.102	88	30.09	18	28.71	32	65.87	192	8.68	74	50.78	220	52.159	152	65.41	102
Feb. 9	54.028	74	30.08	1	28.43	28	63.48	239	8.04	64	48.11	267	52.029	130	63.98	143
19	53.973	55	29.88	20	28.21	22	60.69	279	7.51	53	45.02	309	51.926	103	62.17	181
März 1	53.942	31	29.47	41	28.06	15	57.55	314	7.12	39	41.61	341	51.856	70	60.01	216
11	53.940	2	28.83	64	27.98	8	54.14	341	6.87	25	37.94	367	51.824	32	57.56	245
21	53.972	32	27.95	88	27.97	1	50.54	360	6.76	11	34.12	382	51.834	10	54.86	270
31	54.040	68	26.84	111	28.04	7	46.83	371	6.81	5	30.21	391	51.892	58	51.97	289
Apr. 10	54.148	108	25.49	135	28.19	15	43.08	375	7.01	20	26.31	390	51.998	106	48.93	304
20	54.297	149	23.92	157	28.42	23	39.37	371	7.37	36	22.49	382	52.155	157	45.82	311
30	54.485	188	22.15	177	28.74	32	35.77	360	7.88	51	18.84	365	52.361	206	42.68	314
Mai 10	54.710	225	20.20	195	29.13	39	32.36	341	8.53	65	15.43	341	52.615	254	39.59	309
20	54.969	259	18.13	207	29.59	46	29.22	314	9.31	78	12.33	310	52.912	297	36.61	298
30	55.256	287	15.97	216	30.11	52	26.41	281	10.20	89	9.62	271	53.247	335	33.82	279
Juni 9	55.564	308	13.77	220	30.67	56	24.00	241	11.18	98	7.34	228	53.610	363	31.27	255
19	55.885	321	11.58	219	31.27	60	22.04	196	12.22	104	5.55	179	53.995	385	29.03	224
29	56.212	327	9.47	211	31.88	61	20.57	147	13.31	109	4.30	125	54.391	396	27.15	188
Juli 9	56.536	324	7.48	199	32.50	62	19.63	94	14.41	110	3.61	69	54.789	398	25.67	148
19	56.849	313	5.66	182	33.11	61	19.25	38	15.50	109	3.50	11	55.178	389	24.63	104
29	57.145	296	4.06	160	33.68	57	19.42	17	16.54	104	3.96	46	55.546	368	24.07	56
Aug. 8	57.415	270	2.72	134	34.21	53	20.13	71	17.51	97	4.98	102	55.887	341	23.98	9
18	57.654	239	1.65	107	34.69	48	21.35	122	18.37	86	6.52	154	56.192	305	24.36	38
28	57.859	205	0.87	78	35.09	40	23.05	170	19.09	72	8.53	201	56.453	261	25.19	83
Sept. 7	58.026	167	0.39	48	35.40	31	25.15	210	19.66	57	10.94	241	56.665	212	26.43	124
17	58.155	129	0.20	19	35.62	22	27.58	243	20.06	40	13.65	271	56.825	160	28.02	159
26*)	26 58.245	90	0.27	7	26 35.75	13	30.24	266	27 20.28	22	16.57	292	27 56.932	107	29.90	188
Okt. 6	58.299	54	0.58	31	35.79	4	33.02	278	20.31	3	19.58	301	56.987	55	31.99	209
16	58.319	20	1.08	50	35.73	6	35.81	279	20.16	15	22.56	298	56.992	5	34.19	220
26	58.309	10	1.74	66	35.58	15	38.50	269	19.82	34	25.38	282	56.951	41	36.40	221
Nov. 5	58.273	36	2.51	77	35.36	22	40.96	246	19.32	50	27.95	257	56.870	81	38.54	214
15	58.215	58	3.35	84	35.08	28	43.10	214	18.68	64	30.13	218	56.755	115	40.51	197
25	58.140	75	4.21	86	34.74	34	44.82	172	17.93	75	31.84	171	56.613	142	42.22	171
Dez. 5	58.052	88	5.04	83	34.36	38	46.05	123	17.09	84	33.01	117	56.451	162	43.61	139
15	57.956	96	5.81	77	33.96	40	46.74	69	16.20	89	33.58	57	56.276	175	44.62	101
25	57.854	102	6.50	69	33.55	41	46.86	12	15.29	91	33.52	6	56.095	181	45.21	59
35	57.751	103	7.07	57	33.15	40	46.38	48	14.39	90	32.85	67	55.913	182	45.36	15
Mittl. Ort	54.737		22.96		29.17		49.43		9.27		34.17		52.567		51.05	
sec δ, tg δ	1.013		−0.162		2.391		−2.172		4.673		−4.565		1.360		−0.922	
a, *a′*	+3.1		+20.0		+2.9		+20.0		+2.5		+20.0		+3.0		+19.9	
b, *b′*	−0.01		−0.07		−0.14		−0.07		−0.30		−0.10		−0.06		−0.10	

*) Bei Stern 11) und 12) lies Sept. 27

Scheinbare Sternörter 1931

Tag	13) 12 Ceti AR.		13) 12 Ceti Dekl.		17) ζ Cassiopeiae AR.		17) ζ Cassiopeiae Dekl.		18) π Andromedae AR.		18) π Andromedae Dekl.		20) δ Andromedae AR.		20) δ Andromedae Dekl.	
1931	$0^h 26^m$		−4° 19′		$0^h 33^m$		+53° 30′		$0^h 33^m$		+33° 20′		$0^h 35^m$		+30° 28′	
Jan. 0	30.716	102	82.41	57	5.866	254	77.32	39	10.702	146	32.25	62	37.325	138	69.73	62
10	30.614	99	82.98	47	5.612	253	76.93	88	10.556	147	31.63	93	37.187	139	69.11	90
20	30.515	93	83.45	35	5.359	242	76.05	133	10.409	140	30.70	119	37.048	132	68.21	114
30	30.422	80	83.80	21	5.117	219	74.72	172	10.269	126	29.51	141	36.916	120	67.07	133
Feb. 9	30.342	63	84.01	4	4.898	184	73.00	203	10.143	104	28.10	156	36.796	100	65.74	146
19	30.279	40	84.05	15	4.714	139	70.97	226	10.039	75	26.54	164	36.696	72	64.28	152
März 1	30.239	12	83.90	35	4.575	83	68.71	239	9.964	38	24.90	164	36.624	37	62.76	150
11	30.227	20	83.55	58	4.492	21	66.32	241	9.926	4	23.26	156	36.587	3	61.26	142
21	30.247	58	82.97	81	4.471	47	63.91	232	9.930	51	21.70	140	36.590	50	59.84	125
31	30.305	98	82.16	106	4.518	118	61.59	214	9.981	102	20.30	117	36.640	98	58.59	102
Apr. 10	30.403	138	81.10	130	4.636	189	59.45	186	10.083	152	19.13	88	36.738	147	57.57	73
20	30.541	179	79.80	153	4.825	256	57.59	151	10.235	202	18.25	53	36.885	195	56.84	39
30	30.720	217	78.27	173	5.081	318	56.08	110	10.437	247	17.72	16	37.080	240	56.45	4
Mai 10	30.937	251	76.54	190	5.399	370	54.98	64	10.684	287	17.56	23	37.320	279	56.41	35
20	31.188	280	74.64	203	5.769	414	54.34	15	10.971	321	17.79	63	37.599	312	56.76	72
30	31.468	303	72.61	211	6.183	445	54.19	33	11.292	345	18.42	101	37.911	337	57.48	108
Juni 9	31.771	317	70.50	215	6.628	465	54.52	82	11.637	362	19.43	137	38.248	353	58.56	143
19	32.088	325	68.35	213	7.093	472	55.34	129	11.999	368	20.80	170	38.601	361	59.99	173
29	32.413	323	66.22	205	7.565	466	56.63	172	12.367	365	22.50	198	38.962	358	61.72	199
Juli 9	32.736	313	64.17	193	8.031	451	58.35	211	12.732	353	24.48	221	39.320	347	63.71	219
19	33.049	297	62.24	175	8.482	425	60.46	244	13.085	334	26.69	239	39.667	329	65.90	235
29	33.346	274	60.49	154	8.907	389	62.90	273	13.419	307	29.08	252	39.996	303	68.25	246
Aug. 8	33.620	245	58.94	130	9.296	348	65.63	295	13.726	275	31.60	259	40.299	271	70.71	250
18	33.865	211	57.64	103	9.644	299	68.58	312	14.001	238	34.19	260	40.570	237	73.21	249
28	34.076	175	56.61	76	9.943	247	71.70	321	14.239	199	36.79	257	40.807	198	75.70	244
Sept. 7	34.251	138	55.85	48	10.190	194	74.91	324	14.438	158	39.36	248	41.005	158	78.14	235
17	34.389	101	55.37	22	10.384	139	78.15	322	14.596	117	41.84	236	41.163	119	80.49	220
27	34.490	65	55.15	2	10.523	85	81.37	313	14.713	78	44.20	219	41.282	80	82.69	204
Okt. 6	34.555	31	55.17	23	10.608	32	84.50	298	14.791	41	46.39	199	41.362	44	84.73	183
16	34.586	2	55.40	41	10.640	18	87.48	277	14.832	5	48.38	177	41.406	11	86.56	161
26	34.588	25	55.81	54	10.622	64	90.25	250	14.837	26	50.15	151	41.417	21	88.17	136
Nov. 5	34.563	46	56.35	65	10.558	108	92.75	217	14.811	54	51.66	122	41.396	48	89.53	109
15	34.517	65	57.00	71	10.450	147	94.92	179	14.757	80	52.88	92	41.348	72	90.62	80
25	34.452	80	57.71	73	10.303	181	96.71	138	14.677	101	53.80	60	41.276	93	91.42	49
Dez. 5	34.372	91	58.44	72	10.122	211	98.09	91	14.576	119	54.40	26	41.183	111	91.91	18
15	34.281	97	59.16	68	9.911	233	99.00	42	14.457	133	54.66	8	41.072	124	92.09	13
25	34.184	102	59.84	63	9.678	247	99.42	9	14.324	142	54.58	42	40.948	134	91.96	44
35	34.082		60.47		9.431		99.33		14.182		54.16		40.814		91.52	
Mittl. Ort	31.048		78.37		6.953		62.62		11.400		23.06		37.969		61.36	
sec δ, tg δ	1.002		−0.076		1.682		+1.352		1.197		+0.658		1.160		+0.589	
a, *a′*	+3.1		+19.9		+3.3		+19.8		+3.2		+19.8		+3.2		+19.8	
b, *b′*	−0.01		−0.12		+0.09		−0.14		+0.04		−0.14		+0.04		−0.15	

Tag	21) α Cassiopeiae AR.	Δ	21) α Cassiopeiae Dekl.	Δ	22) β Ceti AR.	Δ	22) β Ceti Dekl.	Δ	25) o Cassiopeiae AR.	Δ	25) o Cassiopeiae Dekl.	Δ	24) 21 Cassiopeiae AR.	Δ	24) 21 Cassiopeiae Dekl.	Δ
1931	$0^h 36^m$		+56° 9′		$0^h 40^m$		−18° 21′		$0^h 40^m$		+47° 54′		$0^h 40^m$		+74° 36′	
Jan. 0	33.593	279	48.52	32	7.493	115	62.75	44	51.366	212	38.72	39	61.16	71	59.01	11
10	33.314	279	48.20	82	7.378	114	63.19	18	51.154	213	38.33	83	60.45	72	59.12	51
20	33.035	267	47.38	129	7.264	107	63.37	7	50.941	206	37.50	124	59.73	68	58.61	110
30	32.768	243	46.09	170	7.157	97	63.30	34	50.735	188	36.26	159	59.05	63	57.51	164
Feb. 9	32.525	207	44.39	204	7.060	79	62.96	61	50.547	160	34.67	187	58.42	54	55.87	210
19	32.318	158	42.35	230	6.981	57	62.35	88	50.387	122	32.80	207	57.88	43	53.77	248
März 1	32.160	100	40.05	244	6.924	29	61.47	115	50.265	76	30.73	218	57.45	30	51.29	275
11	32.060	32	37.61	249	6.895	4	60.32	140	50.189	22	28.55	218	57.15	15	48.54	289
21	32.028	41	35.12	241	6.899	41	58.92	165	50.167	39	26.37	209	57.00	0	45.65	292
31	32.069	117	32.71	225	6.940	82	57.27	187	50.206	101	24.28	191	57.00	15	42.73	283
Apr. 10	32.186	192	30.46	199	7.022	125	55.40	207	50.307	165	22.37	164	57.15	31	39.90	262
20	32.378	264	28.47	165	7.147	167	53.33	223	50.472	226	20.73	130	57.46	46	37.28	231
30	32.642	329	26.82	123	7.314	207	51.10	235	50.698	283	19.43	90	57.92	59	34.97	192
Mai 10	32.971	386	25.59	77	7.521	245	48.75	243	50.981	331	18.53	47	58.51	70	33.05	147
20	33.357	433	24.82	29	7.766	277	46.32	245	51.312	373	18.06	2	59.21	79	31.58	95
30	33.790	466	24.53	21	8.043	303	43.87	242	51.685	403	18.04	44	60.00	86	30.63	42
Juni 9	34.256	489	24.74	70	8.346	321	41.45	232	52.088	423	18.48	90	60.86	90	30.21	13
19	34.745	496	25.44	119	8.667	332	39.13	218	52.511	432	19.38	133	61.76	91	30.34	68
29	35.241	493	26.63	164	8.999	334	36.95	197	52.943	429	20.71	173	62.67	91	31.02	121
Juli 9	35.734	476	28.27	204	9.333	327	34.98	172	53.372	417	22.44	208	63.58	89	32.23	172
19	36.210	450	30.31	240	9.660	313	33.26	143	53.789	395	24.52	238	64.47	84	33.95	217
29	36.660	413	32.71	270	9.973	292	31.83	110	54.184	365	26.90	263	65.31	77	36.12	259
Aug. 8	37.073	370	35.41	295	10.265	263	30.73	74	54.549	328	29.53	282	66.08	69	38.71	295
18	37.443	319	38.36	314	10.528	231	29.99	39	54.877	285	32.35	295	66.77	59	41.66	324
28	37.762	265	41.50	325	10.759	194	29.60	4	55.162	239	35.30	303	67.36	49	44.90	348
Sept. 7	38.027	209	44.75	330	10.953	155	29.56	29	55.401	192	38.33	303	67.85	38	48.38	364
17	38.236	151	48.05	330	11.108	116	29.85	60	55.593	143	41.36	299	68.23	26	52.02	372
27	38.387	93	51.35	323	11.224	78	30.45	85	55.736	95	44.35	289	68.49	14	55.74	374
Okt. 6	[1] 38.480	37	54.58	309	[2] 11.302	41	31.30	105	[2] 55.831	49	47.24	274	[2] 68.63	3	59.48	368
16	38.517	16	57.67	289	11.343	8	32.35	120	55.880	4	49.98	253	68.66	10	63.16	354
26	38.501	68	60.56	263	11.351	22	33.55	128	55.884	37	52.51	227	68.56	21	66.70	332
Nov. 5	38.433	115	63.19	230	11.329	47	34.83	129	55.847	76	54.78	196	68.35	32	70.02	301
15	38.318	158	65.49	193	11.282	69	36.12	124	55.771	111	56.74	162	68.03	42	73.03	264
25	38.160	196	67.42	150	11.213	86	37.36	114	55.660	141	58.36	122	67.61	52	75.67	218
Dez. 5	37.964	229	68.92	103	11.127	99	38.50	100	55.519	168	59.58	79	67.09	59	77.85	166
15	37.735	253	69.95	53	11.028	109	39.50	81	55.351	190	60.37	35	66.50	66	79.51	110
25	37.482	271	70.48	1	10.919	114	40.31	58	55.161	203	60.72	11	65.84	70	80.61	49
35	37.211		70.49		10.805		40.89		54.958		60.61		65.14		81.10	
Mittl. Ort	34.722		33.10		7.599		54.38		52.248		25.11		63.35		40.32	
sec δ, tg δ	1.796		+1.492		1.054		−0.332		1.492		+1.107		3.768		+3.633	
a, *a′*	+3.4		+19.8		+3.0		+19.7		+3.3		+19.7		+3.9		+19.7	
b, *b′*	+0.10		−0.16		−0.02		−0.17		+0.07		−0.18		+0.24		−0.18	

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Tag	27) ζ Andromedae AR.		Dekl.		32) γ Cassiopeiae AR.		Dekl.		33) μ Andromedae AR.		Dekl.		35) α Sculptoris AR.		Dekl.	
1931	$0^h\ 43^m$		$+23°\ 53'$		$0^h\ 52^m$		$+60°\ 20'$		$0^h\ 52^m$		$+38°\ 7'$		$0^h\ 55^m$		$-29°\ 43'$	
Jan. 0	40.086	124	38.02	61	30.60	33	53.28	4	54.346	162	43.00	40	17.021	141	60.23	37
10	39.962	126	37.41	81	30.27	33	53.24	58	54.184	166	42.60	76	16.880	140	60.60	2
20	39.836	122	36.60	99	29.94	32	52.66	108	54.018	163	41.84	107	16.740	136	60.62	35
30	39.714	112	35.61	112	29.62	30	51.58	155	53.855	152	40.77	136	16.604	125	60.27	72
Feb. 9	39.602	95	34.49	120	29.32	27	50.03	194	53.703	132	39.41	156	16.479	107	59.55	106
19	39.507	70	33.29	121	29.05	21	48.09	224	53.571	104	37.85	170	16.372	85	58.49	140
März 1	39.437	39	32.08	117	28.84	15	45.85	246	53.467	67	36.15	176	16.287	56	57.09	171
11	39.398	1	30.91	106	28.69	7	43.39	255	53.400	22	34.39	174	16.231	21	55.38	200
21	39.397	41	29.85	88	28.62	1	40.84	255	53.378	28	32.65	163	16.210	19	53.38	225
31	39.438	86	28.97	65	28.63	9	38.29	242	53.406	82	31.02	145	16.229	62	51.13	246
Apr. 10	39.524	132	28.32	38	28.72	18	35.87	221	53.488	136	29.57	118	16.291	107	48.67	263
20	39.656	179	27.94	7	28.90	27	33.66	190	53.624	190	28.39	87	16.398	154	46.04	276
30	39.835	223	27.87	27	29.17	34	31.76	152	53.814	240	27.52	51	16.552	198	43.28	282
Mai 10	40.058	261	28.14	61	29.51	40	30.24	108	54.054	285	27.01	12	16.750	240	40.46	283
20	40.319	294	28.75	94	29.91	46	29.16	60	54.339	324	26.89	29	16.990	276	37.63	278
30	40.613	319	29.69	126	30.37	51	28.56	11	54.663	353	27.18	69	17.266	307	34.85	266
Juni 9	40.932	336	30.95	155	30.88	53	28.45	40	55.016	374	27.87	107	17.573	331	32.19	247
19	41.268	345	32.50	179	31.41	54	28.85	90	55.390	384	28.94	144	17.904	345	29.72	224
29	41.613	344	34.29	199	31.95	55	29.75	136	55.774	385	30.38	176	18.249	351	27.48	194
Juli 9	41.957	336	36.28	214	32.50	53	31.11	181	56.159	376	32.14	204	18.600	348	25.54	160
19	42.293	320	38.42	224	33.03	51	32.92	220	56.535	360	34.18	227	18.948	337	23.94	120
29	42.613	296	40.66	229	33.54	47	35.12	255	56.895	335	36.45	246	19.285	317	22.74	79
Aug. 8	42.909	268	42.95	229	34.01	43	37.67	283	57.230	305	38.91	257	19.602	289	21.95	37
18	43.177	235	45.24	223	34.44	38	40.50	307	57.535	269	41.48	264	19.891	257	21.58	6
28	43.412	199	47.47	214	34.82	32	43.57	323	57.804	230	44.12	266	20.148	219	21.64	48
Sept. 7	43.611	162	49.61	201	35.14	26	46.80	334	58.034	189	46.78	262	20.367	178	22.12	86
17	43.773	124	51.62	185	35.40	20	50.14	337	58.223	148	49.40	254	20.545	135	22.98	120
27	43.897	88	53.47	166	35.60	13	53.51	335	58.371	106	51.94	242	20.680	93	24.18	147
Okt. 6	[3] 43.985	53	55.13	145	[5] 35.73	7	56.86	326	[5] 58.477	67	54.36	226	[6] 20.773	52	25.65	167
16	44.038	21	56.58	124	35.80	1	60.12	309	58.544	30	56.62	204	20.825	14	27.32	180
26	44.059	9	57.82	101	35.81	5	63.21	287	58.574	6	58.66	181	20.839	22	29.12	183
Nov. 5	44.050	34	58.83	77	35.76	11	66.08	257	58.568	39	60.47	154	20.817	52	30.95	179
15	44.016	58	59.60	52	35.65	16	68.65	222	58.529	69	62.01	124	20.765	79	32.74	168
25	43.958	78	60.12	26	35.49	21	70.87	180	58.460	95	63.25	91	20.686	101	34.42	149
Dez. 5	43.880	96	60.38	2	35.28	25	72.67	133	58.365	119	64.16	55	20.585	118	35.91	123
15	43.784	109	60.40	23	35.03	29	74.00	83	58.246	139	64.71	19	20.467	130	37.14	93
25	43.675	118	60.17	47	34.74	31	74.83	29	58.107	153	64.90	18	20.337	139	38.07	60
35	43.557		59.70		34.43		75.12		57.954		64.72		20.198		38.67	
Mittl. Ort	40.598		31.52		31.68		36.47		54.968		31.69		16.887		48.86	
sec δ, tg δ	1.094		+0.443		2.021		+1.756		1.271		+0.785		1.152		−0.571	
a, *a'*	+3.2		+19.7		+3.6		+19.5		+3.3		+19.5		+2.9		+19.5	
b, *b'*	+0.03		− 0.19		+0.11		− 0.23		+0.05		− 0.23		−0.04		−0.24	

Tag	36) ε Piscium				38) β Phoenicis				42) β Andromedae				45) υ Piscium			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$0^h\ 59^m$		$+7°\ 31'$		$1^h\ 2^m$		$-47°\ 4'$		$1^h\ 5^m$		$+35°\ 15'$		$1^h\ 15^m$		$+26°\ 54'$	
Jan. 0	$21^s.335$	106	$10''.00$	61	$60^s.856$	216	$93''.00$	17	$51^s.233$	149	$29''.57$	34	$39^s.764$	127	$15''.22$	39
10	21.229	110	9.39	64	60.640	215	93.17	32	51.084	157	29.23	66	39.637	135	14.83	62
20	21.119	109	8.75	63	60.425	207	92.85	82	50.927	157	28.57	96	39.502	138	14.21	83
30	21.010	103	8.12	60	60.218	191	92.03	128	50.770	150	27.61	121	39.364	134	13.38	100
Feb. 9	20.907	90	7.52	53	60.027	168	90.75	173	50.620	133	26.40	140	39.230	121	12.38	113
19	20.817	70	6.99	44	59.859	139	89.02	213	50.487	108	25.00	154	39.109	101	11.25	120
März 1	20.747	44	6.55	29	59.720	102	86.89	248	50.379	75	23.46	160	39.008	71	10.05	120
11	20.703	12	6.26	13	59.618	58	84.41	278	50.304	33	21.86	158	38.937	36	8.85	115
21	20.691	25	6.13	9	59.560	9	81.63	303	50.271	14	20.28	147	38.901	7	7.70	102
31	20.716	67	6.22	32	59.551	43	78.60	321	50.285	66	18.81	131	38.908	53	6.68	85
Apr. 10	20.783	109	6.54	57	59.594	98	75.39	333	50.351	118	17.50	106	38.961	102	5.83	61
20	20.892	153	7.11	83	59.692	154	72.06	339	50.469	172	16.44	77	39.063	152	5.22	33
30	21.045	194	7.94	110	59.846	210	68.67	336	50.641	222	15.67	43	39.215	198	4.89	3
Mai 10	21.239	232	9.04	133	60.056	261	65.31	327	50.863	267	15.24	7	39.413	242	4.86	31
20	21.471	265	10.37	156	60.317	307	62.04	311	51.130	307	15.17	31	39.655	280	5.17	63
30	21.736	292	11.93	175	60.624	347	58.93	287	51.437	337	15.48	69	39.935	311	5.80	95
Juni 9	22.028	311	13.68	189	60.971	378	56.06	257	51.774	360	16.17	105	40.246	333	6.75	126
19	22.339	323	15.57	200	61.349	400	53.49	220	52.134	373	17.22	139	40.579	347	8.01	152
29	22.662	326	17.57	204	61.749	412	51.29	179	52.507	376	18.61	169	40.926	353	9.53	176
Juli 9	22.988	321	19.61	204	62.161	412	49.50	132	52.883	371	20.30	195	41.279	349	11.29	194
19	23.309	308	21.65	199	62.573	402	48.18	82	53.254	356	22.25	217	41.628	339	13.23	208
29	23.617	290	23.64	188	62.975	381	47.36	30	53.610	335	24.42	232	41.967	320	15.31	217
Aug. 8	23.907	265	25.52	175	63.356	351	47.06	22	53.945	308	26.74	243	42.287	296	17.48	220
18	24.172	236	27.27	156	63.707	313	47.28	72	54.253	275	29.17	248	42.583	267	19.68	220
28	24.408	204	28.83	136	64.020	267	48.00	120	54.528	239	31.65	249	42.850	233	21.88	215
Sept. 7	24.612	169	30.19	114	64.287	216	49.20	161	54.767	200	34.14	245	43.083	199	24.03	206
17	24.781	134	31.33	91	64.503	163	50.81	198	54.967	161	36.59	237	43.282	163	26.09	193
27	24.915	100	32.24	68	64.666	107	52.79	225	55.128	122	38.96	224	43.445	127	28.02	178
Okt. 7	25.015	68	32.92	46	64.773	52	55.04	242	55.250	84	41.20	209	43.572	92	29.80	161
16	7 25.083	37	33.38	26	8 64.825	1	57.46	251	8 55.334	47	43.29	190	11 43.664	58	31.41	142
26	25.120	9	33.64	7	64.824	49	59.97	248	55.381	13	45.19	167	43.722	27	32.83	121
Nov. 5	25.129	16	33.71	9	64.775	93	62.45	234	55.394	20	46.86	142	43.749	3	34.04	99
15	25.113	39	33.62	23	64.682	131	64.79	211	55.374	50	48.28	115	43.746	31	35.03	75
25	25.074	59	33.39	36	64.551	162	66.90	180	55.324	77	49.43	85	43.715	56	35.78	51
Dez. 5	25.015	75	33.03	45	64.389	186	68.70	141	55.247	102	50.28	53	43.659	80	36.29	26
15	24.940	90	32.58	53	64.203	204	70.11	97	55.145	123	50.81	19	43.579	101	36.55	1
25	24.850	100	32.05	59	63.999	214	71.08	49	55.022	140	51.00	14	43.478	117	36.56	25
35	24.750		31.46		63.785		71.57		54.882		50.86		43.361		36.31	
Mittl. Ort	21.585		8.64		60.335		77.40		51.724		18.71		40.098		6.69	
sec δ, tg δ	1.009		+0.132		1.469		−1.076		1.225		+0.707		1.121		+0.507	
a, a'	+3.1		+19.4		+2.7		+19.3		+3.3		+19.2		+3.3		+19.0	
b, b'	+0.01		− 0.26		−0.07		− 0.27		+0.05		− 0.28		+0.03		− 0.32	

Tag	47) ϑ Ceti AR.	Δ	47) ϑ Ceti Dekl.	Δ	48) δ Cassiopeiae AR.	Δ	48) δ Cassiopeiae Dekl.	Δ	50) η Piscium AR.	Δ	50) η Piscium Dekl.	Δ	51) 40 Cassiopeiae AR.	Δ	51) 40 Cassiopeiae Dekl.	Δ
1931	$1^h\ 20^m$		$-8°\ 31'$		$1^h\ 21^m$		$+59°\ 52'$		$1^h\ 27^m$		$+14°\ 59'$		$1^h\ 32^m$		$+72°\ 41'$	
Jan. 0	34.458	108	83.67	66	16.355	306	55.91	30	47.086	108	31.03	49	56.78	58	41.14	76
10	34.350	115	84.33	50	16.049	322	56.21	23	46.978	118	30.54	59	56.20	62	41.90	16
20	34.235	117	84.83	32	15.727	326	55.98	74	46.860	123	29.95	67	55.58	62	42.06	43
30	34.118	114	85.15	12	15.401	313	55.24	122	46.737	121	29.28	71	54.96	61	41.63	100
Feb. 9	34.004	103	85.27	9	15.088	286	54.02	164	46.616	112	28.57	73	54.35	56	40.63	152
19	33.901	87	85.18	31	14.802	244	52.38	200	46.504	95	27.84	70	53.79	48	39.11	198
März 1	33.814	64	84.87	54	14.558	187	50.38	225	46.409	72	27.14	63	53.31	39	37.13	235
11	33.750	34	84.33	78	14.371	118	48.13	241	46.337	40	26.51	51	52.92	28	34.78	260
21	33.716	2	83.55	102	14.253	41	45.72	247	46.297	3	26.00	35	52.64	15	32.18	275
31	33.718	40	82.53	126	14.212	43	43.25	241	46.294	40	25.65	16	52.49	1	29.43	279
Apr. 10	33.758	83	81.27	150	14.255	129	40.84	226	46.334	84	25.49	8	52.48	13	26.64	270
20	33.841	127	79.77	171	14.384	213	38.58	202	46.418	130	25.57	34	52.61	28	23.94	252
30	33.968	169	78.06	189	14.597	294	36.56	169	46.548	175	25.91	60	52.89	41	21.42	223
Mai 10	34.137	209	76.17	205	14.891	365	34.87	130	46.723	217	26.51	88	53.30	53	19.19	188
20	34.346	245	74.12	217	15.256	428	33.57	87	46.940	253	27.39	113	53.83	63	17.31	145
30	34.591	275	71.95	223	15.684	478	32.70	41	47.193	285	28.52	137	54.46	72	15.86	98
Juni 9	34.866	299	69.72	225	16.162	515	32.29	7	47.478	308	29.89	158	55.18	78	14.88	48
19	35.165	314	67.47	219	16.677	538	32.36	56	47.786	324	31.47	175	55.96	82	14.40	4
29	35.479	321	65.28	210	17.215	549	32.92	102	48.110	331	33.22	187	56.78	85	14.44	55
Juli 9	35.800	322	63.18	195	17.764	544	33.94	146	48.441	331	35.09	195	57.63	85	14.99	105
19	36.122	314	61.23	175	18.308	529	35.40	187	48.772	323	37.04	197	58.48	84	16.04	153
29	36.436	299	59.48	149	18.837	503	37.27	223	49.095	307	39.01	195	59.32	80	17.57	198
Aug. 8	36.735	277	57.99	122	19.340	466	39.50	254	49.402	287	40.96	189	60.12	75	19.55	238
18	37.012	251	56.77	91	19.806	421	42.04	280	49.689	260	42.85	178	60.87	68	21.93	273
28	37.263	220	55.86	60	20.227	370	44.84	300	49.949	231	44.63	163	61.55	61	24.66	303
Sept. 7	37.483	187	55.26	28	20.597	316	47.84	315	50.180	200	46.26	147	62.16	52	27.69	326
17	37.670	153	54.98	3	20.913	257	50.99	323	50.380	166	47.73	128	62.68	43	30.95	343
27	37.823	118	55.01	30	21.170	196	54.22	325	50.546	132	49.01	109	63.11	33	34.38	354
Okt. 7	37.941	85	55.31	54	21.366	135	57.47	320	50.678	100	50.10	88	63.44	22	37.92	357
16	[12]38.026	53	55.85	74	[12]21.501	73	60.67	310	[14]50.778	69	50.98	68	[15]63.66	12	41.49	354
26	38.079	23	56.59	88	21.574	13	63.77	292	50.847	40	51.66	50	63.78	1	45.03	342
Nov. 5	38.102	5	57.47	98	21.587	47	66.69	268	50.887	11	52.16	31	63.79	10	48.45	322
15	38.097	30	58.45	102	21.540	105	69.37	238	50.898	15	52.47	14	63.69	20	51.67	295
25	38.067	52	59.47	102	21.435	159	71.75	202	50.883	39	52.61	2	63.49	30	54.62	259
Dez. 5	38.015	71	60.49	96	21.276	208	73.77	159	50.844	62	52.59	17	63.19	40	57.21	216
15	37.944	88	61.45	87	21.068	252	75.36	112	50.782	81	52.42	30	62.79	48	59.37	166
25	37.856	101	62.32	75	20.816	286	76.48	61	50.701	98	52.12	43	62.31	55	61.03	111
35	37.755		63.07		20.530		77.09		50.603		51.69		61.76		62.14	
Mittl. Ort	34.425		80.18		17.085		38.46		47.234		26.12		57.72		21.42	
sec δ, tg δ	1.010		−0.150		1.993		+1.724		1.035		+0.268		3.361		+3.208	
a, *a'*	+3.0		+18.8		+3.9		+18.8		+3.2		+18.6		+4.8		+18.4	
b, *b'*	−0.01		−0.34		+0.11		−0.35		+0.02		−0.37		+0.20		−0.39	

Obere Kulmination Greenwich

Tag	52) υ Persei AR.		52) υ Persei Dekl.		54) α Eridani AR.		54) α Eridani Dekl.		55) 43 Cassiopeiae AR.		55) 43 Cassiopeiae Dekl.		57) φ Persei AR.		57) φ Persei Dekl.	
1931	1h 33m		+48° 16′		1h 35m		−57° 34′		1h 37m		+67° 41′		1h 39m		+50° 20′	
Jan. 0	44.329	199	60.52	16	10.047	314	89.08	39	11.46	43	60.86	69	19.023	209	46.35	27
10	44.130	216	60.68	27	9.733	321	89.47	18	11.03	46	61.55	12	18.814	228	46.62	18
20	43.914	223	60.41	69	9.412	318	89.29	73	10.57	47	61.67	45	18.586	238	46.44	61
30	43.691	219	59.72	108	9.094	305	88.56	127	10.10	45	61.22	99	18.348	235	45.83	102
Feb. 9	43.472	204	58.64	141	8.789	281	87.29	178	9.65	43	60.23	149	18.113	220	44.81	138
19	43.268	177	57.23	169	8.508	248	85.51	224	9.22	37	58.74	191	17.893	193	43.43	168
März 1	43.091	139	55.54	189	8.260	206	83.27	264	8.85	30	56.83	225	17.700	154	41.75	190
11	42.952	91	53.65	199	8.054	155	80.63	299	8.55	21	54.58	250	17.546	104	39.85	204
21	42.861	33	51.66	202	7.899	97	77.64	326	8.34	11	52.08	262	17.442	45	37.81	207
31	42.828	29	49.64	194	7.802	33	74.38	348	8.23	1	49.46	265	17.397	20	35.74	202
Apr. 10	42.857	95	47.70	178	7.769	36	70.90	361	8.22	11	46.81	256	17.417	88	33.72	188
20	42.952	161	45.92	154	7.805	106	67.29	367	8.33	23	44.25	237	17.505	157	31.84	166
30	43.113	224	44.38	123	7.911	176	63.62	365	8.56	33	41.88	209	17.662	224	30.18	136
Mai 10	43.337	282	43.15	88	8.087	244	59.97	356	8.89	42	39.79	173	17.886	284	28.82	101
20	43.619	333	42.27	49	8.331	307	56.41	338	9.31	51	38.06	132	18.170	338	27.81	63
30	43.952	375	41.78	8	8.638	363	53.03	313	9.82	58	36.74	86	18.508	383	27.18	21
Juni 9	44.327	407	41.70	34	9.001	410	49.90	280	10.40	63	35.88	37	18.891	417	26.97	22
19	44.734	428	42.04	76	9.411	448	47.10	241	11.03	67	35.51	12	19.308	441	27.19	63
29	45.162	440	42.80	115	9.859	472	44.69	196	11.70	70	35.63	62	19.749	453	27.82	104
Juli 9	45.602	439	43.95	152	10.331	485	42.73	144	12.40	69	36.25	111	20.202	455	28.86	142
19	46.041	429	45.47	184	10.816	485	41.29	90	13.09	68	37.36	156	20.657	445	30.28	177
29	46.470	410	47.31	213	11.301	471	40.39	34	13.77	65	38.92	197	21.102	428	32.05	206
Aug. 8	46.880	383	49.44	236	11.772	444	40.05	23	14.42	61	40.89	235	21.530	401	34.11	232
18	47.263	351	51.80	255	12.216	407	40.28	80	15.03	57	43.24	268	21.931	368	36.43	253
28	47.614	312	54.35	268	12.623	359	41.08	133	15.60	50	45.92	296	22.299	330	38.96	268
Sept. 7	47.926	270	57.03	276	12.982	301	42.41	181	16.10	43	48.88	316	22.629	288	41.64	279
17	48.196	227	59.79	279	13.283	237	44.22	222	16.53	36	52.04	332	22.917	243	44.43	283
27	48.423	182	62.58	276	13.520	169	46.44	254	16.89	29	55.36	340	23.160	196	47.26	282
Okt. 7	48.605	136	65.34	269	13.689	98	48.98	277	17.18	20	58.76	343	23.356	149	50.08	277
16*)	[15] 48.741	91	68.03	257	[16] 13.787	29	51.75	288	[15] 17.38	12	62.19	337	23.505	102	52.85	267
26	48.832	46	70.60	239	13.816	39	54.63	288	17.50	4	65.56	325	[17] 23.607	54	55.52	250
Nov. 5	48.878	2	72.99	217	13.777	103	57.51	275	17.54	4	68.81	306	23.661	8	58.02	229
15	48.880	40	75.16	190	13.674	160	60.26	252	17.50	13	71.87	278	23.669	37	60.31	203
25	48.840	81	77.06	159	13.514	209	62.78	219	17.37	21	74.65	244	23.632	81	62.34	172
Dez. 5	48.759	119	78.65	123	13.305	252	64.97	177	17.16	28	77.09	202	23.551	122	64.06	136
15	48.640	153	79.88	84	13.053	284	66.74	127	16.88	34	79.11	155	23.429	159	65.42	96
25	48.487	182	80.72	43	12.769	307	68.01	74	16.54	40	80.66	103	23.270	191	66.38	53
35	48.305		81.15		12.462		68.75		16.14		81.69		23.079		66.91	
Mittl. Ort	44.748		45.39		8.844		73.04		12.15		41.78		19.414		30.63	
sec δ, tg δ	1.503		+1.122		1.866		−1.575		2.635		+2.438		1.567		+1.206	
a, *a′*	+3.7		+18.4		+2.2		+18.3		+4.4		+18.3		+3.7		+18.2	
b, *b′*	+0.07		−0.40		−0.10		−0.40		+0.15		−0.41		+0.07		−0.42	

*) Bei Stern 57) lies Okt. 17

Tag	59) τ Ceti [1] AR.	Δ	59) Dekl.	Δ	60) ο Piscium AR.	Δ	60) Dekl.	Δ	61) Lac. ε Sculptoris AR.	Δ	61) Dekl.	Δ	62) ζ Ceti AR.	Δ	62) Dekl.	Δ
1931	1h 40m		−16° 17′		1h 41m		+8° 48′		1h 42m		−25° 23′		1h 48m		−10° 40′	
Jan. 0	51.960	119	66.81	70	44.811	102	43.09	54	25.177	132	58.06	76	3.426	107	34.31	75
10	51.841	129	67.51	45	44.709	114	42.55	57	25.045	142	58.82	43	3.319	119	35.06	56
20	51.712	133	67.96	19	44.595	121	41.98	57	24.903	146	59.25	7	3.200	126	35.62	35
30	51.579	132	68.15	9	44.474	121	41.41	55	24.757	145	59.32	28	3.074	127	35.97	13
Feb. 9	51.447	124	68.06	38	44.353	116	40.86	50	24.612	136	59.04	63	2.947	121	36.10	10
19	51.323	109	67.68	66	44.237	101	40.36	43	24.476	121	58.41	98	2.826	108	36.00	35
März 1	51.214	87	67.02	94	44.136	80	39.93	32	24.355	99	57.43	130	2.718	88	35.65	60
11	51.127	58	66.08	121	44.056	51	39.61	17	24.256	68	56.13	162	2.630	61	35.05	85
21	51.069	23	64.87	148	44.005	15	39.44	1	24.188	33	54.51	191	2.569	27	34.20	111
31	51.046	16	63.39	173	43.990	24	39.45	21	24.155	9	52.60	216	2.542	12	33.09	135
Apr. 10	51.062	59	61.66	195	44.014	68	39.66	44	24.164	53	50.44	238	2.554	54	31.74	158
20	51.121	104	59.71	215	44.082	114	40.10	68	24.217	100	48.06	256	2.608	99	30.16	180
30	51.225	148	57.56	231	44.196	158	40.78	92	24.317	146	45.50	270	2.707	142	28.36	199
Mai 10	51.373	191	55.25	243	44.354	200	41.70	116	24.463	190	42.80	276	2.849	185	26.37	214
20	51.564	229	52.82	249	44.554	237	42.86	138	24.653	232	40.04	278	3.034	224	24.23	224
30	51.793	262	50.33	250	44.791	270	44.24	158	24.885	267	37.26	275	3.258	258	21.99	231
Juni 9	52.055	289	47.83	246	45.061	296	45.82	173	25.152	297	34.51	263	3.516	284	19.68	232
19	52.344	308	45.37	235	45.357	313	47.55	185	25.449	318	31.88	245	3.800	304	17.36	226
29	52.652	320	43.02	219	45.670	323	49.40	191	25.767	332	29.43	221	4.104	317	15.10	215
Juli 9	52.972	323	40.83	196	45.993	325	51.31	193	26.099	337	27.22	192	4.421	322	12.95	199
19	53.295	318	38.87	170	46.318	320	53.24	191	26.436	334	25.30	158	4.743	318	10.96	177
29	53.613	306	37.17	137	46.638	307	55.15	182	26.770	323	23.72	118	5.061	307	9.19	151
Aug. 8	53.919	287	35.80	103	46.945	288	56.97	170	27.093	305	22.54	77	5.368	290	7.68	121
18	54.206	263	34.77	66	47.233	265	58.67	155	27.398	280	21.77	35	5.658	268	6.47	89
28	54.469	233	34.11	29	47.498	238	60.22	135	27.678	249	21.42	9	5.926	241	5.58	54
Sept. 7	54.702	202	33.82	8	47.736	208	61.57	114	27.927	216	21.51	51	6.167	211	5.04	20
17	54.904	167	33.90	43	47.944	176	62.71	93	28.143	180	22.02	88	6.378	178	4.84	12
27	55.071	132	34.33	73	48.120	144	63.64	70	28.323	142	22.90	122	6.556	145	4.96	42
Okt. 7	55.203	96	35.06	100	48.264	112	64.34	48	28.465	104	24.12	149	6.701	112	5.38	69
17	55.299	63	36.06	120	48.376	81	64.82	29	28.569	68	25.61	169	6.813	79	6.07	90
26	[17] 55.362	31	37.26	134	[17] 48.457	52	65.11	10	[18] 28.637	32	27.30	181	[19] 6.892	49	6.97	106
Nov. 5	55.393	1	38.60	140	48.509	24	65.21	5	28.669	2	29.11	185	6.941	19	8.03	116
15	55.394	27	40.00	141	48.533	3	65.16	19	28.667	32	30.96	180	6.960	9	9.19	120
25	55.367	52	41.41	134	48.530	28	64.97	31	28.635	59	32.76	168	6.951	35	10.39	119
Dez. 5	55.315	75	42.75	123	48.502	52	64.66	40	28.576	85	34.44	150	6.916	58	11.58	112
15	55.240	95	43.98	106	48.450	72	64.26	47	28.491	106	35.94	126	6.858	79	12.70	101
25	55.145	110	45.04	85	48.378	91	63.79	52	28.385	123	37.20	96	6.779	97	13.71	87
35	55.035		45.89		48.287		63.27		28.262		38.16		6.682		14.58	
Mittl. Ort	51.739		61.43		44.822		39.85		24.803		50.06		3.212		31.19	
sec δ, tg δ	1.042		−0.292		1.012		+0.155		1.107		−0.475		1.018		−0.189	
a, *a*′	+2.9		+18.1		+3.2		+18.1		+2.8		+18.1		+3.0		+17.9	
b, *b*′	−0.02		− 0.43		+0.01		− 0.43		−0.03		− 0.43		−0.01		− 0.45	

[1] Die jährliche Parallaxe (0.″31) ist bereits berücksichtigt.

Tag	64) α Trianguli AR.		64) α Trianguli Dekl.		63) ε Cassiopeiae AR.		63) ε Cassiopeiae Dekl.	
1931	1h 49m		+29° 14′		1h 49m		+63° 19′	
Jan. 0	8.408	122	46.38	15	24.12	34	70.94	72
10	8.286	139	46.23	40	23.78	36	71.66	18
20	8.147	149	45.83	63	23.42	38	71.84	35
30	7.998	151	45.20	82	23.04	38	71.49	87
Feb. 9	7.847	144	44.38	99	22.66	35	70.62	135
19	7.703	129	43.39	111	22.31	32	69.27	176
März 1	7.574	104	42.28	117	21.99	26	67.51	209
11	7.470	70	41.11	117	21.73	19	65.42	233
21	7.400	29	39.94	110	21.54	11	63.09	246
31	7.371	17	38.84	98	21.43	2	60.63	249
April 10	7.388	68	37.86	80	21.41	8	58.14	242
20	7.456	119	37.06	56	21.49	18	55.72	225
30	7.575	169	36.50	29	21.67	27	53.47	199
Mai 10	7.744	217	36.21	2	21.94	35	51.48	165
20	7.961	260	36.23	32	22.29	43	49.83	126
30	8.221	296	36.55	63	22.72	49	48.57	84
Juni 9	8.517	324	37.18	93	23.21	54	47.73	37
19	8.841	345	38.11	121	23.75	58	47.36	11
29	9.186	356	39.32	146	24.33	60	47.47	58
Juli 9	9.542	358	40.78	167	24.93	61	48.05	103
19	9.900	353	42.45	184	25.54	60	49.08	146
29	10.253	341	44.29	196	26.14	57	50.54	187
Aug. 8	10.594	321	46.25	204	26.71	55	52.41	222
18	10.915	297	48.29	206	27.26	51	54.63	253
28	11.212	268	50.35	206	27.77	46	57.16	279
Sept. 7	11.480	236	52.41	200	28.23	40	59.95	298
17	11.716	203	54.41	192	28.63	34	62.93	314
27	11.919	168	56.33	180	28.97	28	66.07	322
Okt. 7	12.087	134	58.13	167	29.25	21	69.29	324
17	12.221	100	59.80	151	29.46	15	72.53	320
26	12.321	66	61.31	133	29.61	7	75.73	309
Nov. 5	12.387	34	62.64	114	29.68	0	78.82	292
15	12.421	2	63.78	93	29.68	6	81.74	266
25	12.423	28	64.71	72	29.62	14	84.40	234
Dez. 5	12.395	58	65.43	48	29.48	20	86.74	197
15	12.337	85	65.91	24	29.28	26	88.71	152
25	12.252	108	66.15	1	29.02	30	90.23	103
35	12.144		66.14		28.72		91.26	
Mittl. Ort	8.539		36.27		24.55		52.41	
sec δ, tg δ	1.146		+0.560		2.228		+1.991	
a, *a′*	+3.4		+17.8		+4.3		+17.8	
b, *b′*	+0.03		— 0.46		+0.12		— 0.46	

Tag	65) ξ Piscium AR.		65) ξ Piscium Dekl.		66) β Arietis AR.		66) β Arietis Dekl.	
1931	1h 49m		+2° 50′		1h 50m		+20° 28′	
Jan. 0	58.960	99	52.32	62	49.350	108	24.60	33
10	58.861	112	51.70	58	49.242	123	24.27	47
20	58.749	121	51.12	51	49.119	133	23.80	61
30	58.628	123	50.61	42	48.986	135	23.19	72
Feb. 9	58.505	117	50.19	32	48.851	130	22.47	79
19	58.388	106	49.87	19	48.721	116	21.68	83
März 1	58.282	85	49.68	4	48.605	94	20.85	81
11	58.197	58	49.64	14	48.511	63	20.04	75
21	58.139	24	49.78	35	48.448	26	19.29	64
31	58.115	15	50.13	56	48.422	16	18.65	48
April 10	58.130	58	50.69	78	48.438	63	18.17	28
20	58.188	102	51.47	102	48.501	111	17.89	5
30	58.290	146	52.49	125	48.612	159	17.84	22
Mai 10	58.436	189	53.74	146	48.771	203	18.06	49
20	58.625	228	55.20	164	48.974	244	18.55	76
30	58.853	260	56.84	179	49.218	279	19.31	103
Juni 9	59.113	286	58.63	191	49.497	306	20.34	126
19	59.399	306	60.54	197	49.803	325	21.60	148
29	59.705	318	62.51	199	50.128	336	23.08	165
Juli 9	60.023	321	64.50	195	50.464	340	24.73	178
19	60.344	317	66.45	186	50.804	335	26.51	187
29	60.661	306	68.31	173	51.139	324	28.38	191
Aug. 8	60.967	290	70.04	155	51.463	305	30.29	189
18	61.257	267	71.59	134	51.768	282	32.18	185
28	61.524	241	72.93	110	52.050	255	34.03	176
Sept. 7	61.765	211	74.03	85	52.305	225	35.79	164
17	61.976	181	74.88	59	52.530	193	37.43	149
27	62.157	150	75.47	34	52.723	161	38.92	134
Okt. 7	62.307	118	75.81	11	52.884	128	40.26	116
17	62.425	87	75.92	9	53.012	97	41.42	98
26	62.512	58	75.83	27	53.109	66	42.40	80
Nov. 5	62.570	29	75.56	42	53.175	36	43.20	63
15	62.599	2	75.14	52	53.211	6	43.83	45
25	62.601	24	74.62	60	53.217	22	44.28	27
Dez. 5	62.577	47	74.02	64	53.195	48	44.55	10
15	62.530	69	73.38	65	53.147	73	44.65	8
25	62.461	88	72.73	65	53.074	95	44.57	24
35	62.373		72.08		52.979		44.33	
Mittl. Ort	58.872		50.84		49.403		17.22	
sec δ, tg δ	1.001		+0.050		1.067		+0.373	
a, *a′*	+3.1		+17.8		+3.3		+17.7	
b, *b′*	0.00		— 0.46		+0.02		— 0.46	

Scheinbare Sternörter 1931

Tag	67) ψ Phoenicis AR.		67) Dekl.		68) χ Eridani AR.		68) Dekl.		72) α Hydri AR.		72) Dekl.		71) υ Ceti AR.		71) Dekl.	
1931	$1^h\,50^m$		−46°37′		$1^h\,53^m$		−51°56′		$1^h\,56^m$		−61°53′		$1^h\,56^m$		−21°24′	
Jan. 0	53.734	217	98.30	73	17.452	255	81.94	69	37.39	37	94.48	60	45.624	121	47.52	85
10	53.517	229	99.03	22	17.197	268	82.63	15	37.02	39	95.08	3	45.503	135	48.37	56
20	53.288	233	99.25	29	16.929	271	82.78	39	36.63	39	95.11	56	45.368	142	48.93	23
30	53.055	229	98.96	80	16.658	266	82.39	92	36.24	39	94.55	113	45.226	143	49.16	9
Feb. 9	52.826	216	98.16	127	16.392	251	81.47	142	35.85	36	93.42	165	45.083	139	49.07	42
19	52.610	196	96.89	173	16.141	227	80.05	189	35.49	33	91.77	214	44.944	126	48.65	75
März 1	52.414	165	95.16	214	15.914	195	78.16	231	35.16	28	89.63	258	44.818	105	47.90	106
11	52.249	128	93.02	250	15.719	152	75.85	269	34.88	23	87.05	294	44.713	78	46.84	137
21	52.121	83	90.52	281	15.567	103	73.16	300	34.65	17	84.11	326	44.635	44	45.47	166
31	52.038	32	87.71	307	15.464	48	70.16	325	34.48	10	80.85	350	44.591	4	43.81	192
Apr. 10	52.006	23	84.64	326	15.416	13	66.91	343	34.38	2	77.35	365	44.587	39	41.89	215
20	52.029	80	81.38	338	15.429	75	63.48	354	34.36	6	73.70	374	44.626	85	39.74	235
30	52.109	138	78.00	345	15.504	139	59.94	358	34.42	14	69.96	375	44.711	131	37.39	251
Mai 10	52.247	195	74.55	342	15.643	201	56.36	354	34.56	22	66.21	367	44.842	176	34.88	262
20	52.442	247	71.13	333	15.844	259	52.82	343	34.78	29	62.54	350	45.018	217	32.26	267
30	52.689	294	67.80	316	16.103	311	49.39	323	35.07	36	59.04	328	45.235	253	29.59	266
Juni 9	52.983	334	64.64	291	16.414	356	46.16	295	35.43	42	55.76	296	45.488	284	26.93	259
19	53.317	366	61.73	260	16.770	393	43.21	262	35.85	47	52.80	256	45.772	307	24.34	245
29	53.683	388	59.13	221	17.163	418	40.59	220	36.32	50	50.24	212	46.079	321	21.89	226
Juli 9	54.071	400	56.92	177	17.581	432	38.39	173	36.82	52	48.12	161	46.400	329	19.63	200
19	54.471	401	55.15	129	18.013	436	36.66	122	37.34	53	46.51	106	46.729	328	17.63	170
29	54.872	392	53.86	76	18.449	428	35.44	67	37.87	53	45.45	47	47.057	320	15.93	134
Aug. 8	55.264	374	53.10	22	18.877	408	34.77	11	38.40	51	44.98	11	47.377	303	14.59	95
18	55.638	345	52.88	33	19.285	379	34.66	45	38.91	47	45.09	70	47.680	282	13.64	55
28	55.983	310	53.21	85	19.664	340	35.11	100	39.38	42	45.79	126	47.962	255	13.09	13
Sept. 7	56.293	267	54.06	134	20.004	294	36.11	150	39.80	37	47.05	177	48.217	223	12.96	28
17	56.560	220	55.40	178	20.298	241	37.61	194	40.17	30	48.82	222	48.440	190	13.24	66
27	56.780	169	57.18	214	20.539	185	39.55	231	40.47	22	51.04	259	48.630	155	13.90	100
Okt. 7	56.949	117	59.32	243	20.724	125	41.86	259	40.69	14	53.63	285	48.785	120	14.90	128
17	57.066	64	61.75	260	20.849	66	44.45	275	40.83	6	56.48	299	48.905	84	16.18	150
26	[20] 57.130	13	64.35	266	[20] 20.915	8	47.20	282	[21] 40.89	2	59.47	303	[21] 48.989	50	17.68	166
Nov. 5	57.143	36	67.01	263	20.923	48	50.02	275	40.87	9	62.50	294	49.039	17	19.34	172
15	57.107	80	69.64	248	20.875	100	52.77	258	40.78	17	65.44	273	49.056	13	21.06	171
25	57.027	120	72.12	223	20.775	145	55.35	231	40.61	23	68.17	241	49.043	42	22.77	163
Dez. 5	56.907	156	74.35	190	20.630	186	57.66	195	40.38	28	70.58	199	49.001	68	24.40	149
15	56.751	184	76.25	150	20.444	218	59.61	152	40.10	33	72.57	152	48.933	91	25.89	128
25	56.567	208	77.75	104	20.226	245	61.13	102	39.77	36	74.09	97	48.842	111	27.17	103
35	56.359		78.79		19.981		62.15		39.41		75.06		48.731		28.20	
Mittl. Ort	52.837		85.23		16.343		67.94		35.70		79.05		45.225		41.39	
sec δ, tg δ	1.456		−1.059		1.623		−1.278		2.123		−1.873		1.074		−0.392	
a, a'	+2.4		+17.7		+2.3		+17.6		+1.9		+17.5		+2.8		+17.5	
b, b'	−0.06		−0.47		−0.07		−0.47		−0.11		−0.49		−0.02		−0.49	

Tag	70) 50 Cassiopeiae AR.		Dekl.		73) γ Andromedae AR.		Dekl.		74) α Arietis AR.		Dekl.		75) β Trianguli AR.		Dekl.	
1931	$1^h\ 57^m$		$+72°\ 5'$		$1^h\ 59^m$		$+41°\ 59'$		$2^h\ 3^m$		$+23°\ 8'$		$2^h\ 5^m$		$+34°\ 39'$	
Jan. 0	29.69	53	38.71	106	39.142	156	71.78	24	16.707	107	21.76	22	25.774	129	54.37	9
10	29.16	57	39.77	48	38.986	177	72.02	12	16.600	125	21.54	39	25.645	150	54.46	20
20	28.59	60	40.25	11	38.809	191	71.90	48	16.475	138	21.15	55	25.495	163	54.26	48
30	27.99	60	40.14	69	38.618	195	71.42	81	16.337	142	20.60	69	25.332	169	53.78	75
Feb. 9	27.39	56	39.45	123	38.423	188	70.61	110	16.195	139	19.91	79	25.163	165	53.03	97
19	26.83	51	38.22	171	38.235	170	69.51	136	16.056	127	19.12	86	24.998	151	52.06	114
März 1	26.32	44	36.51	211	38.065	142	68.15	153	15.929	106	18.26	88	24.847	127	50.92	127
11	25.88	33	34.40	243	37.923	103	66.62	164	15.823	77	17.38	84	24.720	93	49.65	134
21	25.55	20	31.97	263	37.820	55	64.98	167	15.746	39	16.54	77	24.627	50	48.31	132
31	25.35	8	29.34	272	37.765	0	63.31	161	15.707	5	15.77	63	24.577	2	46.99	124
Apr. 10	25.27	6	26.62	270	37.765	59	61.70	149	15.712	51	15.14	45	24.575	51	45.75	110
20	25.33	20	23.92	257	37.824	119	60.21	129	15.763	101	14.69	22	24.626	106	44.65	90
30	25.53	33	21.35	235	37.943	178	58.92	103	15.864	149	14.47	2	24.732	160	43.75	65
Mai 10	25.86	46	19.00	204	38.121	233	57.89	72	16.013	196	14.49	29	24.892	212	43.10	36
20	26.32	57	16.96	166	38.354	284	57.17	38	16.209	238	14.78	56	25.104	259	42.74	5
30	26.89	66	15.30	123	38.638	327	56.79	2	16.447	275	15.34	84	25.363	298	42.69	28
Juni 9	27.55	73	14.07	76	38.965	361	56.77	34	16.722	304	16.18	109	25.661	331	42.97	60
19	28.28	79	13.31	27	39.326	386	57.11	70	17.026	326	17.27	131	25.992	355	43.57	91
29	29.07	82	13.04	23	39.712	400	57.81	104	17.352	339	18.58	151	26.347	369	44.48	119
Juli 9	29.89	84	13.27	73	40.112	406	58.85	136	17.691	344	20.09	167	26.716	376	45.67	145
19	30.73	84	14.00	121	40.518	402	60.21	164	18.035	342	21.76	178	27.092	373	47.12	167
29	31.57	81	15.21	166	40.920	390	61.85	188	18.377	332	23.54	185	27.465	363	48.79	184
Aug. 8	32.38	77	16.87	207	41.310	371	63.73	208	18.709	316	25.39	186	27.828	345	50.63	197
18	33.15	72	18.94	244	41.681	345	65.81	222	19.025	294	27.25	185	28.173	323	52.60	207
28	33.87	66	21.38	277	42.026	314	68.03	233	19.319	269	29.10	179	28.496	295	54.67	211
Sept. 7	34.53	58	24.15	303	42.340	279	70.36	239	19.588	240	30.89	169	28.791	264	56.78	211
17	35.11	49	27.18	324	42.619	243	72.75	241	19.828	208	32.58	158	29.055	231	58.89	208
27	35.60	41	30.42	339	42.862	204	75.16	238	20.036	177	34.16	144	29.286	196	60.97	201
Okt. 7	36.01	31	33.81	346	43.066	165	77.54	230	20.213	145	35.60	128	29.482	161	62.98	191
17	36.32	21	37.27	348	43.231	125	79.84	220	20.358	113	36.88	112	29.643	125	64.89	179
26	[21] 36.53	10	40.75	341	[22] 43.356	85	82.04	206	[23] 20.471	81	38.00	95	[23] 29.768	89	66.68	164
Nov. 5	36.63	1	44.16	326	43.441	45	84.10	188	20.552	50	38.95	78	29.857	54	68.32	146
15	36.62	12	47.42	304	43.486	5	85.98	166	20.602	18	39.73	60	29.911	18	69.78	127
25	36.50	21	50.46	274	43.491	33	87.64	141	20.620	11	40.33	42	29.929	17	71.05	104
Dez. 5	36.29	32	53.20	236	43.458	71	89.05	111	20.609	40	40.75	24	29.912	50	72.09	80
15	35.97	41	55.56	190	43.387	105	90.16	79	20.569	67	40.99	6	29.862	83	72.89	53
25	35.56	49	57.46	139	43.282	137	90.95	46	20.502	92	41.05	12	29.779	111	73.42	25
35	35.07		58.85		43.145		91.41		20.410		40.93		29.668		73.67	
Mittl. Ort	30.12		18.83		39.286		57.84		16.701		13.23		25.828		42.36	
sec δ, tg δ	3.252		+3.094		1.346		+0.900		1.087		+0.427		1.216		+0.692	
a, *a'*	+5.1		+17.5		+3.7		+17.4		+3.4		+17.2		+3.6		+17.1	
b, *b'*	+0.18		− 0.49		+0.05		− 0.50		+0.02		− 0.51		+0.04		− 0.52	

Scheinbare Sternörter 1931

Tag	76) 55 Cassiopeiae				78) Lac. μ Fornacis				80) 67 Ceti				85) ξ² Ceti			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$2^h\ 8^m$		$+66°\ 12'$		$2^h\ 9^m$		$-31°\ 2'$		$2^h\ 13^m$		$-6°\ 43'$		$2^h\ 24^m$		$+8°\ 9'$	
Jan. 0	$62^s.31$	36	$27''.13$	103	$52^s.837$	143	$57''.26$	98	$32^s.724$	98	$82''.74$	80	$29^s.480$	89	$10''.25$	52
10	61.95	41	28.16	49	52.694	159	58.24	59	32.626	115	83.54	64	29.391	110	9.73	52
20	61.54	43	28.65	$\overline{6}$	52.535	169	58.83	18	32.511	127	84.18	46	29.281	124	9.21	51
30	61.11	43	28.59	60	52.366	171	59.01	$\overline{23}$	32.384	132	84.64	28	29.157	132	8.70	47
Feb. 9	60.68	42	27.99	111	52.195	168	58.78	63	32.252	131	84.92	8	29.025	134	8.23	43
19	60.26	39	26.88	157	52.027	155	58.15	103	32.121	122	85.00	$\overline{14}$	28.891	126	7.80	35
März 1	59.87	33	25.31	195	51.872	134	57.12	140	31.999	105	84.86	36	28.765	110	7.45	24
11	59.54	25	23.36	224	51.738	107	55.72	175	31.894	81	84.50	60	28.655	87	7.21	12
21	59.29	17	21.12	244	51.631	71	53.97	207	31.813	49	83.90	84	28.568	55	7.09	$\overline{4}$
31	59.12	7	18.68	253	51.560	30	51.90	236	31.764	11	83.06	108	28.513	16	7.13	23
Apr. 10	59.05	$\overline{4}$	16.15	251	51.530	16	49.54	259	31.753	$\overline{31}$	81.98	131	28.497	$\overline{26}$	7.36	42
20	59.09	14	13.64	240	51.546	65	46.95	278	31.784	75	80.67	153	28.523	71	7.78	64
30	59.23	25	11.24	219	51.611	114	44.17	292	31.859	119	79.14	174	28.594	118	8.42	86
Mai 10	59.48	35	9.05	190	51.725	162	41.25	299	31.978	163	77.40	191	28.712	162	9.28	108
20	59.83	44	7.15	155	51.887	207	38.26	301	32.141	204	75.49	205	28.874	204	10.36	128
30	60.27	51	5.60	114	52.094	248	35.25	295	32.345	239	73.44	214	29.078	240	11.64	146
Juni 9	60.78	57	4.46	69	52.342	283	32.30	282	32.584	270	71.30	219	29.318	271	13.10	161
19	61.35	62	3.77	23	52.625	311	29.48	263	32.854	293	69.11	218	29.589	295	14.71	172
29	61.97	65	3.54	$\overline{24}$	52.936	330	26.85	237	33.147	308	66.93	212	29.884	311	16.43	179
Juli 9	62.62	66	3.78	71	53.266	341	24.48	204	33.455	317	64.81	199	30.195	320	18.22	181
19	63.28	67	4.49	115	53.607	344	22.44	167	33.772	317	62.82	182	30.515	322	20.03	178
29	63.95	65	5.64	157	53.951	339	20.77	123	34.089	310	61.00	160	30.837	316	21.81	169
Aug. 8	64.60	62	7.21	196	54.290	324	19.54	78	34.399	297	59.40	134	31.153	304	23.50	158
18	65.22	59	9.17	231	54.614	304	18.76	30	34.696	279	58.06	104	31.457	287	25.08	142
28	65.81	54	11.48	260	54.918	277	18.46	$\overline{18}$	34.975	255	57.02	73	31.744	265	26.50	123
Sept. 7	66.35	48	14.08	285	55.195	246	18.64	64	35.230	229	56.29	40	32.009	241	27.73	102
17	66.83	42	16.93	304	55.441	210	19.28	106	35.459	200	55.89	8	32.250	213	28.75	80
27	67.25	36	19.97	317	55.651	173	20.34	145	35.659	169	55.81	$\overline{21}$	32.463	184	29.55	58
Okt. 7	67.61	28	23.14	324	55.824	134	21.79	176	35.828	138	56.02	49	32.647	155	30.13	36
17	67.89	20	26.38	325	55.958	94	23.55	199	35.966	107	56.51	72	32.802	125	30.49	16
26*)	[24] 68.09	13	29.63	319	[25] 56.052	56	25.54	214	[25] 36.073	76	57.23	89	[28] 32.927	95	30.65	$\overline{2}$
Nov. 5	68.22	5	32.82	306	56.108	18	27.68	219	36.149	46	58.12	101	33.022	66	30.63	16
15	68.27	$\overline{4}$	35.88	286	56.126	$\overline{17}$	29.87	215	36.195	17	59.13	109	33.088	36	30.47	28
25	68.23	12	38.74	257	56.109	50	32.02	202	36.212	$\overline{11}$	60.22	111	33.124	7	30.19	38
Dez. 5	68.11	19	41.31	223	56.059	81	34.04	182	36.201	38	61.33	107	33.131	$\overline{21}$	29.81	45
15	67.92	26	43.54	181	55.978	108	35.86	154	36.163	63	62.40	101	33.110	49	29.36	50
25	67.66	33	45.35	133	55.870	132	37.40	122	36.100	85	63.41	89	33.061	74	28.86	52
35	67.33		46.68		55.738		38.62		36.015		64.30		32.987		28.34	
Mittl. Ort	62.49		8.02		52.202		49.03		32.413		81.91		29.245		5.95	
sec δ, tg δ	2.478		+2.268		1.167		−0.602		1.007		−0.118		1.010		+0.143	
a, *a'*	+4.7		+16.9		+2.6		+16.9		+3.0		+16.7		+3.2		+16.2	
b, *b'*	+0.13		− 0.53		−0.03		− 0.54		−0.01		− 0.55		+0.01		− 0.59	

*) Bei Stern 85) lies Okt. 27

Tag	87) 36 H. Cassiopeiae AR.		87) 36 H. Cassiopeiae Dekl.		90) μ Hydri AR.		90) μ Hydri Dekl.	
1931	$2^h\ 31^m$		+72° 31′		$2^h\ 33^m$		−79° 24′	
Jan. 0	26.03	49	25.09	147	11.45	114	52.52	83
10	25.54	56	26.56	92	10.31	120	53.35	23
20	24.98	60	27.48	35	9.11	123	53.58	38
30	24.38	62	27.83	24	7.88	121	53.20	97
Feb. 9	23.76	61	27.59	79	6.67	118	52.23	153
19	23.15	57	26.80	132	5.49	111	50.70	205
März 1	22.58	51	25.48	177	4.38	101	48.65	251
11	22.07	42	23.71	215	3.37	89	46.14	291
21	21.65	30	21.56	244	2.48	74	43.23	323
31	21.35	18	19.12	261	1.74	57	40.00	349
Apr. 10	21.17	4	16.51	267	1.17	40	36.51	367
20	21.13	11	13.84	264	0.77	21	32.84	378
30	21.24	24	11.20	249	0.56	2	29.06	379
Mai 10	21.48	38	8.71	227	0.54	18	25.27	373
20	21.86	50	6.44	196	0.72	37	21.54	358
30	22.36	61	4.48	158	1.09	55	17.96	336
Juni 9	22.97	70	2.90	117	1.64	72	14.60	306
19	23.67	77	1.73	71	2.36	87	11.54	267
29	24.44	83	1.02	24	3.23	100	8.87	222
Juli 9	25.27	85	0.78	24	4.23	109	6.65	172
19	26.12	87	1.02	71	5.32	115	4.93	116
29	26.99	87	1.73	117	6.47	119	3.77	57
Aug. 8	27.86	84	2.90	160	7.66	118	3.20	3
18	28.70	81	4.50	200	8.84	113	3.23	64
28	29.51	75	6.50	236	9.97	105	3.87	123
Sept. 7	30.26	68	8.86	267	11.02	94	5.10	178
17	30.94	61	11.53	293	11.96	79	6.88	226
27	31.55	53	14.46	314	12.75	61	9.14	266
Okt. 7	32.08	44	17.60	328	13.36	42	11.80	297
17	32.52	33	20.88	336	13.78	20	14.77	315
27	32.85	22	24.24	337	13.98	3	17.92	321
Nov. 5	^{30}33.07	12	27.61	330	^{30}13.95	24	21.13	316
15	33.19	0	30.91	315	13.71	45	24.29	296
25	33.19	12	34.06	293	13.26	65	27.25	266
Dez. 5	33.07	23	36.99	262	12.61	83	29.91	225
15	32.84	34	39.61	223	11.78	98	32.16	178
25	32.50	43	41.84	177	10.80	109	33.94	121
35	32.07		43.61		9.71		35.15	
Mittl. Ort	25.77		5.19		5.39		38.16	
sec δ, tg δ	3.329		+3.175		5.442		−5.349	
a, *a′*	+5.7		+15.8		−1.4		+15.7	
b, *b′*	+0.17		− 0.61		−0.28		− 0.62	

Tag	89) ν Arietis AR.		89) ν Arietis Dekl.		91) δ Ceti AR.		91) δ Ceti Dekl.	
1931	$2^h\ 34^m$		+21° 39′		$2^h\ 35^m$		+0° 1′	
Jan. 0	53.806	92	59.13	14	56.974	87	56.30	72
10	53.714	116	58.99	27	56.887	107	55.58	63
20	53.598	135	58.72	41	56.780	124	54.95	52
30	53.463	145	58.31	52	56.656	134	54.43	40
Feb. 9	53.318	149	57.79	61	56.522	137	54.03	26
19	53.169	142	57.18	68	56.385	132	53.77	10
März 1	53.027	126	56.50	70	56.253	117	53.67	6
11	52.901	102	55.80	69	56.136	96	53.73	25
21	52.799	67	55.11	63	56.040	66	53.98	45
31	52.732	27	54.48	53	55.974	29	54.43	67
Apr. 10	52.705	19	53.95	37	55.945	12	55.10	88
20	52.724	67	53.58	19	55.957	56	55.98	110
30	52.791	117	53.39	2	56.013	101	57.08	131
Mai 10	52.908	165	53.41	26	56.114	147	58.39	151
20	53.073	208	53.67	51	56.261	188	59.90	167
30	53.281	249	54.18	75	56.449	225	61.57	181
Juni 9	53.530	283	54.93	97	56.674	258	63.38	191
19	53.813	308	55.90	118	56.932	283	65.29	196
29	54.121	327	57.08	136	57.215	301	67.25	196
Juli 9	54.448	337	58.44	149	57.516	312	69.21	191
19	54.785	340	59.93	160	57.828	316	71.12	180
29	55.125	335	61.53	165	58.144	313	72.92	165
Aug. 8	55.460	325	63.18	166	58.457	303	74.57	145
18	55.785	308	64.84	164	58.760	287	76.02	122
28	56.093	287	66.48	158	59.047	268	77.24	95
Sept. 7	56.380	262	68.06	149	59.315	244	78.19	68
17	56.642	236	69.55	138	59.559	219	78.87	40
27	56.878	207	70.93	124	59.778	190	79.27	12
Okt. 7	57.085	177	72.17	109	59.968	161	79.39	12
17	57.262	146	73.26	95	60.129	132	79.27	35
27	57.408	115	74.21	80	60.261	102	78.92	54
Nov. 5	^{31}57.523	84	75.01	65	^{31}60.363	73	78.38	67
15	57.607	52	75.66	50	60.436	42	77.71	78
25	57.659	19	76.16	37	60.478	13	76.93	83
Dez. 5	57.678	13	76.53	22	60.491	16	76.10	85
15	57.665	45	76.75	8	60.475	45	75.25	83
25	57.620	74	76.83	7	60.430	71	74.42	78
35	57.546		76.76		60.359		73.64	
Mittl. Ort	53.599		50.44		56.612		54.19	
sec δ, tg δ	1.076		+0.397		1.000		+0.001	
a, *a′*	+3.4		+15.6		+3.1		+15.6	
b, *b′*	+0.02		− 0.63		0.00		− 0.63	

Scheinbare Sternörter 1931

Tag	93) ϑ Persei AR.		Dekl.		97) π Ceti AR.		Dekl.		98) μ Ceti AR.		Dekl.		100) 41 Arietis AR.		Dekl.	
1931	$2^h\ 39^m$		+48° 56′		$2^h\ 40^m$		−14° 8′		$2^h\ 41^m$		+9° 49′		$2^h\ 45^m$		+26° 58′	
Jan. 0	28.710	159	31.85	78	50.797	97	62.12	103	12.838	82	30.80	47	55.257	92	48.27	7
10	28.551	195	32.63	39	50.700	120	63.15	79	12.756	105	30.33	48	55.165	120	48.34	11
20	28.356	221	33.02	0	50.580	135	63.94	53	12.651	124	29.85	48	55.045	141	48.23	29
30	28.135	236	33.02	40	50.445	146	64.47	27	12.527	135	29.37	47	54.904	155	47.94	47
Feb. 9	27.899	239	32.62	78	50.299	149	64.74	1	12.392	139	28.90	43	54.749	161	47.47	62
19	27.660	227	31.84	111	50.150	143	64.73	30	12.253	134	28.47	37	54.588	155	46.85	74
März 1	27.433	203	30.73	140	50.007	131	64.43	58	12.119	121	28.10	29	54.433	140	46.11	82
11	27.230	165	29.33	162	49.876	108	63.85	87	11.998	99	27.81	18	54.293	115	45.29	86
21	27.065	117	27.71	176	49.768	79	62.98	114	11.899	68	27.63	4	54.178	81	44.43	85
31	26.948	59	25.95	182	49.689	43	61.84	141	11.831	31	27.59	12	54.097	39	43.58	79
Apr. 10	26.889	6	24.13	180	49.646	2	60.43	166	11.800	11	27.71	31	54.058	8	42.79	68
20	26.895	73	22.33	170	49.644	43	58.77	188	11.811	56	28.02	51	54.066	58	42.11	52
30	26.968	142	20.63	152	49.687	88	56.89	209	11.867	103	28.53	72	54.124	110	41.59	32
Mai 10	27.110	207	19.11	128	49.775	134	54.80	224	11.970	149	29.25	93	54.234	160	41.27	9
20	27.317	269	17.83	99	49.909	177	52.56	236	12.119	191	30.18	114	54.394	207	41.18	16
30	27.586	322	16.84	67	50.086	216	50.20	242	12.310	230	31.32	132	54.601	249	41.34	41
Juni 9	27.908	368	16.17	32	50.302	249	47.78	243	12.540	262	32.64	148	54.850	286	41.75	66
19	28.276	403	15.85	5	50.551	278	45.35	238	12.802	289	34.12	160	55.136	313	42.41	89
29	28.679	429	15.90	41	50.829	298	42.97	227	13.091	307	35.72	168	55.449	334	43.30	110
Juli 9	29.108	445	16.31	76	51.127	311	40.70	209	13.398	319	37.40	172	55.783	347	44.40	129
19	29.553	450	17.07	109	51.438	317	38.61	187	13.717	322	39.12	170	56.130	352	45.69	143
29	30.003	447	18.16	140	51.755	315	36.74	158	14.039	320	40.82	165	56.482	349	47.12	155
Aug. 8	30.450	434	19.56	166	52.070	307	35.16	125	14.359	310	42.47	154	56.831	339	48.67	161
18	30.884	414	21.22	189	52.377	292	33.91	90	14.669	296	44.01	141	57.170	324	50.28	164
28	31.298	388	23.11	208	52.669	273	33.01	52	14.965	276	45.42	123	57.494	305	51.92	164
Sept. 7	31.686	358	25.19	224	52.942	249	32.49	13	15.241	253	46.65	104	57.799	281	53.56	159
17	32.044	322	27.43	234	53.191	222	32.36	25	15.494	228	47.69	83	58.080	254	55.15	153
27	32.366	284	29.77	240	53.413	193	32.61	59	15.722	201	48.52	62	58.334	226	56.68	144
Okt. 7	32.650	244	32.17	243	53.606	162	33.20	91	15.923	173	49.14	41	58.560	196	58.12	134
17	32.894	200	34.60	241	53.768	131	34.11	116	16.096	144	49.55	22	58.756	165	59.46	121
27	33.094	154	37.01	234	53.899	99	35.27	137	16.240	114	49.77	5	58.921	132	60.67	109
Nov. 5	[1] 33.248	108	39.35	223	[1] 53.998	67	36.64	149	[2] 16.354	84	49.82	9	[3] 59.053	99	61.76	96
15	33.356	60	41.58	209	54.065	36	38.13	155	16.438	53	49.73	22	59.152	66	62.72	81
25	33.416	10	43.67	188	54.101	4	39.68	155	16.491	23	49.51	31	59.218	31	63.53	67
Dez. 5	33.426	40	45.55	163	54.105	26	41.23	147	16.514	7	49.20	39	59.249	5	64.20	51
15	33.386	88	47.18	133	54.079	55	42.70	135	16.507	37	48.81	44	59.244	39	64.71	34
25	33.298	132	48.51	100	54.024	83	44.05	116	16.470	65	48.37	47	59.205	73	65.05	17
35	33.166		49.51		53.941		45.21		16.405		47.90		59.132		65.22	
Mittl. Ort	28.539		15.99		50.261		60.17		12.525		25.54		55.007		37.91	
sec δ, tg δ	1.522		+1.148		1.031		−0.252		1.015		+0.173		1.122		+0.509	
a, *a*′	+4.1		+15.4		+2.9		+15.3		+3.2		+15.3		+3.5		+15.0	
b, *b*′	+0.06		− 0.64		−0.01		− 0.65		+0.01		− 0.65		+0.03		− 0.66	

Tag	101) β Fornacis				102) τ^2 Eridani				103) τ Persei				104) η Eridani			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$2^h\ 46^m$		$-32°\ 41'$		$2^h\ 47^m$		$-21°\ 16'$		$2^h\ 49^m$		$+52°\ 28'$		$2^h\ 53^m$		$-9°\ 9'$	
Jan. 0	$12^s.999$	138	$48''.46$	130	$55^s.156$	107	$79''.71$	118	$21^s.429$	171	$69''.65$	99	$3^s.849$	86	$78''.79$	99
10	12.861	162	49.76	90	55.049	130	80.89	88	21.258	213	70.64	59	3.763	110	79.78	80
20	12.699	178	50.66	49	54.919	148	81.77	56	21.045	243	71.23	17	3.653	129	80.58	59
30	12.521	189	51.15	5	54.771	159	82.33	23	20.802	261	71.40	26	3.524	142	81.17	37
Feb. 9	12.332	191	51.20	38	54.612	162	82.56	12	20.541	266	71.14	67	3.382	147	81.54	14
19	12.141	185	50.82	81	54.450	158	82.44	47	20.275	257	70.47	105	3.235	144	81.68	11
März 1	11.956	169	50.01	121	54.292	145	81.97	81	20.018	233	69.42	137	3.091	133	81.57	36
11	11.787	146	48.80	159	54.147	124	81.16	113	19.785	194	68.05	163	2.958	113	81.21	61
21	11.641	113	47.21	194	54.023	94	80.03	144	19.591	142	66.42	183	2.845	85	80.60	86
31	11.528	75	45.27	227	53.929	58	78.59	174	19.449	82	64.59	192	2.760	50	79.74	111
Apr. 10	11.453	29	43.00	253	53.871	16	76.85	200	19.367	14	62.67	193	2.710	9	78.63	136
20	11.424	19	40.47	276	53.855	29	74.85	223	19.353	59	60.74	186	2.701	34	77.27	158
30	11.443	70	37.71	293	53.884	77	72.62	242	19.412	132	58.88	172	2.735	79	75.69	178
Mai 10	11.513	120	34.78	305	53.961	123	70.20	257	19.544	204	57.16	150	2.814	125	73.91	196
20	11.633	169	31.73	309	54.084	168	67.63	267	19.748	270	55.66	122	2.939	168	71.95	210
30	11.802	213	28.64	307	54.252	209	64.96	269	20.018	329	54.44	91	3.107	207	69.85	220
Juni 9	12.015	254	25.57	297	54.461	245	62.27	266	20.347	379	53.53	56	3.314	242	67.65	224
19	12.269	287	22.60	280	54.706	275	59.61	257	20.726	420	52.97	19	3.556	270	65.41	223
29	12.556	312	19.80	255	54.981	298	57.04	241	21.146	450	52.78	18	3.826	291	63.18	215
Juli 9	12.868	331	17.25	225	55.279	314	54.63	218	21.596	469	52.96	54	4.117	306	61.03	204
19	13.199	340	15.00	188	55.593	321	52.45	189	22.065	478	53.50	90	4.423	313	58.99	185
29	13.539	343	13.12	145	55.914	321	50.56	155	22.543	477	54.40	123	4.736	312	57.14	161
Aug. 8	13.882	335	11.67	98	56.235	313	49.01	118	23.020	466	55.63	153	5.048	306	55.53	134
18	14.217	322	10.69	49	56.548	302	47.83	75	23.486	448	57.16	179	5.354	294	54.19	102
28	14.539	301	10.20	2	56.850	282	47.08	32	23.934	423	58.95	202	5.648	276	53.17	68
Sept. 7	14.840	275	10.22	51	57.132	259	46.76	12	24.357	391	60.97	220	5.924	255	52.49	32
17	15.115	244	10.73	99	57.391	231	46.88	53	24.748	356	63.17	235	6.179	230	52.17	2
27	15.359	210	11.72	142	57.622	202	47.41	92	25.104	316	65.52	245	6.409	203	52.19	36
Okt. 7	15.569	173	13.14	178	57.824	170	48.33	127	25.420	274	67.97	251	6.612	174	52.55	65
17	15.742	135	14.92	207	57.994	137	49.60	154	25.694	227	70.48	252	6.786	145	53.20	91
27	15.877	95	16.99	227	58.131	103	51.14	176	25.921	179	73.00	249	6.931	114	54.11	112
Nov. 5	[3] 15.972	56	19.26	238	[3] 58.234	68	52.90	188	[4] 26.100	127	75.49	241	[5] 7.045	83	55.23	126
15	16.028	17	21.64	239	58.302	34	54.78	192	26.227	74	77.90	227	7.128	52	56.49	134
25	16.045	21	24.03	229	58.336	1	56.70	188	26.301	19	80.17	209	7.180	21	57.83	136
Dez. 5	16.024	57	26.32	212	58.337	31	58.58	178	26.320	36	82.26	185	7.201	11	59.19	132
15	15.967	90	28.44	186	58.306	63	60.36	160	26.284	90	84.11	155	7.190	41	60.51	123
25	15.877	123	30.30	154	58.243	91	61.96	137	26.194	140	85.66	120	7.149	70	61.74	110
35	15.754		31.84		58.152		63.33		26.054		86.86		7.079		62.84	
Mittl. Ort	12.127		41.84		54.486		76.09		21.156		53.11		3.312		78.79	
sec δ, tg δ	1.188		−0.642		1.073		−0.390		1.642		+1.302		1.013		−0.162	
a, *a'*	+2.5		+15.0		+2.7		+14.9		+4.2		+14.8		+2.9		+14.6	
b, *b'*	−0.03		−0.66		−0.02		−0.67		+0.06		−0.67		−0.01		−0.69	

Scheinbare Sternörter 1931

Tag	106) ϑ Eridani				105) 47 H. Cephei				107) α Ceti				108) γ Persei			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$2^h 55^m$		$-40° 34'$		$2^h 56^m$		$+79° 8'$		$2^h 58^m$		$+3° 49'$		$2^h 59^m$		$+53° 14'$	
Jan. 0	$39^s.689$	166	$57''.11$	145	$51^s.34$	77	$75''.39$	195	$40^s.633$	75	$16''.00$	65	$47^s.525$	166	$32''.00$	110
10	39.523	193	58.56	100	50.57	90	77.34	140	40.558	101	15.35	60	47.359	210	33.10	72
20	39.330	212	59.56	52	49.67	98	78.74	82	40.457	121	14.75	52	47.149	244	33.82	29
30	39.118	224	60.08	3	48.69	104	79.56	21	40.336	136	14.23	43	46.905	267	34.11	14
Feb. 9	38.894	228	60.11	45	47.65	104	79.77	39	40.200	143	13.80	33	46.638	274	33.97	56
19	38.666	222	59.66	92	46.61	100	79.38	98	40.057	141	13.47	22	46.364	268	33.41	94
März 1	38.444	206	58.74	137	45.61	91	78.40	150	39.916	130	13.25	8	46.096	246	32.47	129
11	38.238	181	57.37	179	44.70	78	76.90	197	39.786	111	13.17	7	45.850	209	31.18	157
21	38.057	147	55.58	217	43.92	62	74.93	234	39.675	83	13.24	24	45.641	158	29.61	177
31	37.910	105	53.41	251	43.30	43	72.59	260	39.592	48	13.48	43	45.483	98	27.84	190
Apr. 10	37.805	58	50.90	279	42.87	22	69.99	276	39.544	8	13.91	63	45.385	30	25.94	194
20	37.747	5	48.11	303	42.65	0	67.23	281	39.536	36	14.54	84	45.355	43	24.00	190
30	37.742	49	45.08	319	42.65	22	64.42	276	39.572	82	15.38	103	45.398	118	22.10	177
Mai 10	37.791	104	41.89	330	42.87	44	61.66	260	39.654	128	16.41	124	45.516	191	20.33	158
20	37.895	158	38.59	332	43.31	64	59.06	236	39.782	170	17.65	141	45.707	260	18.75	133
30	38.053	208	35.27	327	43.95	83	56.70	204	39.952	210	19.06	157	45.967	321	17.42	102
Juni 9	38.261	253	32.00	315	44.78	98	54.66	166	40.162	245	20.63	168	46.288	374	16.40	69
19	38.514	291	28.85	295	45.76	111	53.00	123	40.407	273	22.31	177	46.662	418	15.71	33
29	38.805	322	25.90	267	46.87	122	51.77	77	40.680	293	24.08	180	47.080	450	15.38	4
Juli 9	39.127	345	23.23	231	48.09	129	51.00	29	40.973	308	25.88	179	47.530	473	15.42	40
19	39.472	359	20.92	190	49.38	133	50.71	19	41.281	315	27.67	172	48.003	484	15.82	75
29	39.831	364	19.02	143	50.71	135	50.90	68	41.596	314	29.39	160	48.487	486	16.57	109
Aug. 8	40.195	360	17.59	92	52.06	134	51.58	115	41.910	308	30.99	145	48.973	478	17.66	139
18	40.555	348	16.67	38	53.40	130	52.73	159	42.218	297	32.44	126	49.451	461	19.05	166
28	40.903	328	16.29	17	54.70	124	54.32	201	42.515	280	33.70	102	49.912	438	20.71	191
Sept. 7	41.231	301	16.46	71	55.94	116	56.33	238	42.795	260	34.72	78	50.350	410	22.62	210
17	41.532	268	17.17	122	57.10	105	58.71	272	43.055	236	35.50	53	50.760	375	24.72	227
27	41.800	232	18.39	169	58.15	93	61.43	300	43.291	211	36.03	27	51.135	336	26.99	238
Okt. 7	42.032	191	20.08	207	59.08	79	64.43	322	43.502	184	36.30	4	51.471	294	29.37	246
17	42.223	147	22.15	238	59.87	63	67.65	337	43.686	156	36.34	18	51.765	248	31.83	250
27	42.370	102	24.53	260	60.50	46	71.02	347	43.842	127	36.16	36	52.013	200	34.33	249
Nov. 5*)	[5] 42.472	57	27.13	270	60.96	28	74.49	347	43.969	98	35.80	51	52.213	146	36.82	242
15	42.529	12	29.83	269	[6] 61.24	8	77.96	341	[6] 44.067	67	35.29	61	[6] 52.359	92	39.24	231
25	42.541	31	32.52	259	61.32	11	81.37	326	44.134	35	34.68	69	52.451	36	41.55	214
Dez. 5	42.510	73	35.11	238	61.21	31	84.63	300	44.169	4	33.99	72	52.487	22	43.69	192
15	42.437	113	37.49	208	60.90	49	87.63	266	44.173	27	33.27	71	52.465	78	45.61	165
25	42.324	147	39.57	172	60.41	67	90.29	223	44.146	57	32.56	70	52.387	133	47.26	131
35	42.177		41.29		59.74		92.52		44.089		31.86		52.254		48.57	
Mittl. Ort	38.564		49.32		49.98		55.20		40.188		12.06		47.147		15.40	
sec δ, tg δ	1.317		−0.856		5.312		+5.217		1.002		+0.067		1.671		+1.339	
a, *a'*	+2.3		+14.4		+7.9		+14.4		+3.1		+14.3		+4.3		+14.2	
b, *b'*	−0.04		− 0.69		+0.25		− 0.70		0.00		− 0.70		+0.06		− 0.71	

*) Bei Stern 105), 107) und 108) lies Nov. 6

Tag	109) ρ Persei AR.	Δ	109) ρ Persei Dekl.	Δ	110) μ Horologii AR.	Δ	110) μ Horologii Dekl.	Δ	111) β Persei AR.	Δ	111) β Persei Dekl.	Δ	114) δ Arietis AR.	Δ	114) δ Arietis Dekl.	Δ
1931	3h 0m		+38° 34′		3h 1m		−59° 59′		3h 3m		+40° 41′		3h 7m		+19° 28′	
Jan. 0	45.164	105	40.47	56	61.13	33	88.54	151	40.627	108	41.90	67	41.151	73	9.48	12
10	45.059	139	41.03	28	60.80	36	90.05	97	40.519	145	42.57	37	41.078	102	9.36	22
20	44.920	167	41.31	0	60.44	38	91.02	39	40.374	174	42.94	6	40.976	126	9.14	30
30	44.753	186	41.31	29	60.06	40	91.41	18	40.200	194	43.00	24	40.850	143	8.84	39
Feb. 9	44.567	193	41.02	57	59.66	41	91.23	75	40.006	202	42.76	54	40.707	153	8.45	46
19	44.374	191	40.45	82	59.25	39	90.48	129	39.804	200	42.22	81	40.554	151	7.99	50
März 1	44.183	176	39.63	102	58.86	36	89.19	179	39.604	184	41.41	105	40.403	142	7.49	52
11	44.007	148	38.61	118	58.50	33	87.40	225	39.420	158	40.36	122	40.261	122	6.97	51
21	43.859	111	37.43	127	58.17	27	85.15	266	39.262	119	39.14	133	40.139	93	6.46	47
31	43.748	66	36.16	131	57.90	22	82.49	301	39.143	72	37.81	139	40.046	55	5.99	38
Apr. 10	43.682	12	34.85	127	57.68	15	79.48	329	39.071	17	36.42	136	39.991	13	5.61	25
20	43.670	45	33.58	117	57.53	8	76.19	350	39.054	40	35.06	128	39.978	34	5.36	9
30	43.715	103	32.41	101	57.45	0	72.69	364	39.094	101	33.78	114	40.012	83	5.27	8
Mai 10	43.818	160	31.40	81	57.45	7	69.05	370	39.195	160	32.64	93	40.095	132	5.35	29
20	43.978	214	30.59	57	57.52	16	65.35	366	39.355	216	31.71	69	40.227	177	5.64	50
30	44.192	263	30.02	29	57.68	23	61.69	356	39.571	266	31.02	42	40.404	220	6.14	71
Juni 9	44.455	305	29.73	1	57.91	29	58.13	336	39.837	309	30.60	13	40.624	256	6.85	90
19	44.760	339	29.72	28	58.20	36	54.77	308	40.146	345	30.47	16	40.880	286	7.75	108
29	45.099	365	30.00	57	58.56	41	51.69	273	40.491	372	30.63	47	41.166	309	8.83	123
Juli 9	45.464	381	30.57	83	58.97	45	48.96	229	40.863	390	31.10	74	41.475	325	10.06	135
19	45.845	390	31.40	108	59.42	48	46.67	179	41.253	398	31.84	100	41.800	332	11.41	143
29	46.235	390	32.48	129	59.90	49	44.88	125	41.651	400	32.84	123	42.132	333	12.84	146
Aug. 8	46.625	383	33.77	147	60.39	49	43.63	65	42.051	393	34.07	143	42.465	328	14.30	146
18	47.008	369	35.24	161	60.88	48	42.98	5	42.444	380	35.50	160	42.793	317	15.76	142
28	47.377	350	36.85	173	61.36	46	42.93	56	42.824	361	37.10	172	43.110	301	17.18	134
Sept. 7	47.727	326	38.58	179	61.82	42	43.49	116	43.185	338	38.82	182	43.411	282	18.52	125
17	48.053	300	40.37	184	62.24	37	44.65	171	43.523	310	40.64	189	43.693	259	19.77	112
27	48.353	269	42.21	185	62.61	32	46.36	219	43.833	279	42.53	191	43.952	234	20.89	99
Okt. 7	48.622	237	44.06	183	62.93	25	48.55	261	44.112	247	44.44	191	44.186	208	21.88	84
17	48.859	203	45.89	178	63.18	18	51.16	292	44.359	211	46.35	188	44.394	179	22.72	70
27	49.062	167	47.67	171	63.36	11	54.08	311	44.570	174	48.23	182	44.573	149	23.42	57
Nov. 6	6 49.229	128	49.38	162	7 63.47	3	57.19	318	7 44.744	134	50.05	173	8 44.722	118	23.99	44
16	49.357	88	51.00	150	63.50	4	60.37	313	44.878	93	51.78	162	44.840	86	24.43	32
26	49.445	46	52.50	134	63.46	12	63.50	296	44.971	49	53.40	147	44.926	52	24.75	22
Dez. 6	49.491	3	53.84	116	63.34	18	66.46	268	45.020	5	54.87	128	44.978	18	24.97	11
16	49.494	39	55.00	95	63.16	24	69.14	230	45.025	40	56.15	107	44.996	18	25.08	1
26	49.455	79	55.95	70	62.92	30	71.44	183	44.985	82	57.22	81	44.978	52	25.09	8
36	49.376		56.65		62.62		73.27		44.903		58.03		44.926		25.01	
Mittl. Ort	44.835		27.03		58.99		77.99		40.275		27.98		40.748		0.94	
sec δ, tg δ	1.279		+0.798		2.000		−1.732		1.319		+0.860		1.061		+0.353	
a, *a′*	+3.8		+14.1		+1.4		+14.1		+3.9		+13.9		+3.4		+13.7	
b, *b′*	+0.04		− 0.71		−0.08		− 0.71		+0.04		− 0.72		+0.02		− 0.73	

Scheinbare Sternörter 1931

Tag	117) 12 Eridani AR.		117) Dekl.		115) 48 H. Cephei AR.		115) Dekl.		120) α Persei AR.		120) Dekl.		121) o Tauri AR.		121) Dekl.	
1931	$3^h 9^m$		−29° 14′		$3^h 11^m$		+77° 28′		$3^h 19^m$		+49° 37′		$3^h 21^m$		+8° 47′	
Jan. 0	9.215	117	94.19	144	31.19	61	82.04	204	23.675	127	17.07	111	6.356	62	19.58	50
10	9.098	144	95.63	108	30.58	73	84.08	154	23.548	172	18.18	77	6.294	92	19.08	49
20	8.954	166	96.71	69	29.85	82	85.62	97	23.376	209	18.95	41	6.202	117	18.59	46
30	8.788	181	97.40	29	29.03	88	86.59	38	23.167	236	19.36	2	6.085	136	18.13	41
Feb. 9	8.607	188	97.69	13	28.15	89	86.97	22	22.931	250	19.38	37	5.949	147	17.72	36
19	8.419	187	97.56	54	27.26	87	86.75	80	22.681	250	19.01	73	5.802	149	17.36	30
März 1	8.232	175	97.02	94	26.39	81	85.95	133	22.431	235	18.28	105	5.653	142	17.06	22
11	8.057	156	96.08	132	25.58	71	84.62	180	22.196	206	17.23	133	5.511	125	16.84	11
21	7.901	127	94.76	167	24.87	58	82.82	220	21.990	163	15.90	154	5.386	100	16.73	1
31	7.774	91	93.09	201	24.29	41	80.62	248	21.827	110	14.36	167	5.286	66	16.74	16
Apr. 10	7.683	49	91.08	229	23.88	24	78.14	267	21.717	49	12.69	173	5.220	26	16.90	33
20	7.634	2	88.79	254	23.64	5	75.47	276	21.668	17	10.96	172	5.194	17	17.23	50
30	7.632	46	86.25	275	23.59	15	72.71	273	21.685	87	9.24	162	5.211	64	17.73	69
Mai 10	7.678	97	83.50	289	23.74	33	69.98	260	21.772	156	7.62	146	5.275	110	18.42	89
20	7.775	144	80.61	297	24.07	52	67.38	240	21.928	221	6.16	124	5.385	154	19.31	107
30	7.919	189	77.64	299	24.59	68	64.98	211	22.149	280	4.92	98	5.539	196	20.38	124
Juni 9	8.108	231	74.65	294	25.27	83	62.87	176	22.429	333	3.94	69	5.735	232	21.62	137
19	8.339	265	71.71	281	26.10	95	61.11	136	22.762	377	3.25	37	5.967	263	22.99	149
29	8.604	293	68.90	262	27.05	105	59.75	92	23.139	411	2.88	4	6.230	287	24.48	156
Juli 9	8.897	314	66.28	235	28.10	112	58.83	46	23.550	436	2.84	28	6.517	304	26.04	158
19	9.211	327	63.93	202	29.22	117	58.37	2	23.986	451	3.12	60	6.821	314	27.62	157
29	9.538	331	61.91	162	30.39	120	58.39	49	24.437	456	3.72	91	7.135	317	29.19	150
Aug. 8	9.869	330	60.29	119	31.59	119	58.88	94	24.893	452	4.63	118	7.452	314	30.69	140
18	10.199	320	59.10	71	32.78	117	59.82	139	25.345	442	5.81	143	7.766	306	32.09	125
28	10.519	304	58.39	22	33.95	112	61.21	180	25.787	424	7.24	164	8.072	292	33.34	108
Sept. 7	10.823	283	58.17	27	35.07	106	63.01	218	26.211	402	8.88	182	8.364	275	34.42	88
17	11.106	256	58.44	75	36.13	97	65.19	252	26.613	372	10.70	198	8.639	255	35.30	66
27	11.362	227	59.19	119	37.10	88	67.71	282	26.985	340	12.68	209	8.894	232	35.96	45
Okt. 7	11.589	194	60.38	158	37.98	76	70.53	305	27.325	303	14.77	216	9.126	208	36.41	24
17	11.783	159	61.96	190	38.74	62	73.58	323	27.628	263	16.93	221	9.334	181	36.65	4
27	11.942	123	63.86	214	39.36	48	76.81	335	27.891	220	19.14	221	9.515	153	36.69	12
Nov. 6	12.065	85	66.00	228	39.84	33	80.16	339	28.111	173	21.35	218	9.668	123	36.57	27
15	[9] 12.150	47	68.28	233	[9] 40.17	16	83.55	335	[11] 28.284	122	23.53	210	[12] 9.791	92	36.30	37
25	12.197	9	70.61	229	40.33	1	86.90	322	28.406	70	25.63	197	9.883	60	35.93	45
Dez. 5	12.206	29	72.90	216	40.32	19	90.12	301	28.476	15	27.60	179	9.943	26	35.48	50
15	12.177	64	75.06	194	40.13	35	93.13	269	28.491	40	29.39	157	9.969	8	34.98	52
25	12.113	99	77.00	166	39.78	51	95.82	231	28.451	93	30.96	129	9.961	42	34.46	53
35	12.014		78.66		39.27		98.13		28.358		32.25		9.919		33.93	
Mittl. Ort	8.304		89.71		29.64		62.30		23.151		1.41		5.836		13.71	
sec δ, tg δ	1.146		−0.560		4.614		+4.505		1.543		+1.176		1.012		+0.155	
a, a′	+2.5		+13.6		+7.5		+13.4		+4.3		+12.9		+3.2		+12.8	
b, b′	−0.03		− 0.73		+0.20		− 0.74		+0.05		− 0.76		+0.01		− 0.77	

Tag	122) 2 H. Camelop.				125) *f* Tauri				127) ε Eridani [1]				131) δ Persei			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$3^h 23^m$		$+59° 42'$		$3^h 27^m$		$+12° 42'$		$3^h 29^m$		$-9° 41'$		$3^h 37^m$		$+47° 34'$	
Jan. 0	28.612	183	23.39	154	4.145	59	11.70	35	41.406	73	26.12	113	60.837	98	21.46	115
10	28.429	243	24.93	113	4.086	90	11.35	37	41.333	102	27.25	93	60.739	147	22.61	85
20	28.186	290	26.06	69	3.996	116	10.98	38	41.231	127	28.18	71	60.592	188	23.46	52
30	27.896	324	26.75	23	3.880	136	10.60	38	41.104	146	28.89	48	60.404	218	23.98	16
Feb. 9	27.572	341	26.98	25	3.744	149	10.22	37	40.958	157	29.37	23	60.186	237	24.14	19
19	27.231	340	26.73	70	3.595	152	9.85	34	40.801	159	29.60	3	59.949	242	23.95	54
März 1	26.891	321	26.03	111	3.443	146	9.51	30	40.642	153	29.57	28	59.707	232	23.41	86
11	26.570	284	24.92	148	3.297	130	9.21	24	40.489	137	29.29	55	59.475	209	22.55	113
21	26.286	230	23.44	178	3.167	104	8.97	15	40.352	113	28.74	80	59.266	173	21.42	135
31	26.056	162	21.66	198	3.063	71	8.82	3	40.239	81	27.94	106	59.093	125	20.07	150
Apr. 10	25.894	85	19.68	211	2.992	31	8.79	12	40.158	43	26.88	130	58.968	67	18.57	158
20	25.809	2	17.57	214	2.961	14	8.91	27	40.115	1	25.58	153	58.901	5	16.99	159
30	25.807	86	15.43	209	2.975	60	9.18	46	40.114	45	24.05	174	58.896	61	15.40	153
Mai 10	25.893	172	13.34	196	3.035	108	9.64	64	40.159	91	22.31	192	58.957	127	13.87	140
20	26.065	255	11.38	176	3.143	153	10.28	82	40.250	135	20.39	206	59.084	192	12.47	122
30	26.320	331	9.62	149	3.296	195	11.10	100	40.385	176	18.33	216	59.276	251	11.25	99
Juni 9	26.651	397	8.13	119	3.491	232	12.10	116	40.561	214	16.17	222	59.527	304	10.26	73
19	27.048	454	6.94	84	3.723	263	13.26	129	40.775	246	13.95	221	59.831	349	9.53	45
29	27.502	499	6.10	47	3.986	288	14.55	138	41.021	272	11.74	216	60.180	385	9.08	15
Juli 9	28.001	532	5.63	9	4.274	307	15.93	145	41.293	290	9.58	204	60.565	413	8.93	15
19	28.533	553	5.54	28	4.581	317	17.38	146	41.583	302	7.54	186	60.978	430	9.08	44
29	29.086	563	5.82	66	4.898	321	18.84	143	41.885	307	5.68	163	61.408	440	9.52	72
Aug. 8	29.649	561	6.48	101	5.219	319	20.27	137	42.192	307	4.05	135	61.848	440	10.24	98
18	30.210	551	7.49	134	5.538	311	21.64	126	42.499	299	2.70	103	62.288	433	11.22	120
28	30.761	532	8.83	164	5.849	299	22.90	113	42.798	287	1.67	69	62.721	422	12.42	141
Sept. 7	31.293	504	10.47	191	6.148	282	24.03	96	43.085	270	0.98	32	63.143	401	13.83	159
17	31.797	468	12.38	214	6.430	263	24.99	79	43.355	250	0.66	5	63.544	378	15.42	173
27	32.265	429	14.52	233	6.693	241	25.78	60	43.605	227	0.71	40	63.922	349	17.15	184
Okt. 7	32.694	382	16.85	249	6.934	216	26.38	41	43.832	201	1.11	72	64.271	317	18.99	193
17	33.076	330	19.34	260	7.150	191	26.79	25	44.033	173	1.83	100	64.588	281	20.92	198
27	33.406	273	21.94	265	7.341	163	27.04	9	44.206	145	2.83	122	64.869	241	22.90	200
Nov. 6	33.679	211	24.59	266	7.504	133	27.13	4	44.351	113	4.05	139	65.110	197	24.90	200
15*)	[12] 33.890	144	27.25	260	[13] 7.637	101	27.09	14	[14] 44.464	81	5.44	149	[16] 65.307	149	26.90	194
25	34.034	75	29.85	250	7.738	68	26.95	22	44.545	48	6.93	151	65.456	99	28.84	185
Dez. 5	34.109	1	32.35	231	7.806	33	26.73	29	44.593	14	8.44	148	65.555	44	30.69	172
15	34.110	71	34.66	206	7.839	2	26.44	33	44.607	20	9.92	140	65.599	10	32.41	153
25	34.039	140	36.72	174	7.837	37	26.11	36	44.587	53	11.32	126	65.589	65	33.94	129
35	33.899		38.46		7.800		25.75		44.534		12.58		65.524		35.23	
Mittl. Ort	27.894		6.06		3.616		4.70		40.716		27.27		60.182		6.51	
sec δ, tg δ	1.982		+1.711		1.025		+0.225		1.014		−0.171		1.482		+1.094	
a, *a'*	+4.8		+12.7		+3.3		+12.4		+2.9		+12.2		+4.3		+11.6	
b, *b'*	+0.07		− 0.78		+0.01		− 0.79		−0.01		− 0.79		+0.04		− 0.81	

[1]) Die jährliche Parallaxe (0.″32) ist bereits berücksichtigt.

*) Bei Stern 131) lies Nov. 16

Scheinbare Sternörter 1931

Tag	134) ν Persei AR.	Δ	134) ν Persei Dekl.	Δ	138) 5 H. Camelop. AR.	Δ	138) 5 H. Camelop. Dekl.	Δ	141) β Reticuli AR.	Δ	141) β Reticuli Dekl.	Δ	139) η Tauri AR.	Δ	139) η Tauri Dekl.	Δ
1931	3h 40m		+42° 21'		3h 42m		+71° 7'		3h 43m		−65° 0'		3h 43m		+23° 53'	
Jan. 0	30.560 s	81	57.30 "	94	64.05 s	30	37.50 "	212	22.60 s	37	94.02 "	200	23.311 s	51	44.94 "	13
10	30.479	125	58.24	68	63.75	40	39.62	169	22.23	42	96.02	148	23.260	88	45.07	3
20	30.354	164	58.92	40	63.35	48	41.31	120	21.81	47	97.50	93	23.172	120	45.10	9
30	30.190	193	59.32	9	62.87	54	42.51	67	21.34	50	98.43	36	23.052	144	45.01	20
Feb. 9	29.997	210	59.41	21	62.33	57	43.18	12	20.84	51	98.79	22	22.908	160	44.81	30
19	29.787	217	59.20	51	61.76	57	43.30	43	20.33	52	98.57	79	22.748	167	44.51	40
März 1	29.570	209	58.69	77	61.19	56	42.87	94	19.81	50	97.78	133	22.581	163	44.11	48
11	29.361	189	57.92	101	60.63	50	41.93	141	19.31	46	96.45	183	22.418	148	43.63	53
21	29.172	156	56.91	117	60.13	42	40.52	181	18.85	42	94.62	229	22.270	122	43.10	55
31	29.016	113	55.74	129	59.71	33	38.71	214	18.43	36	92.33	269	22.148	88	42.55	53
Apr. 10	28.903	61	54.45	135	59.38	22	36.57	236	18.07	28	89.64	303	22.060	47	42.02	46
20	28.842	3	53.10	134	59.16	9	34.21	250	17.79	21	86.61	331	22.013	0	41.56	36
30	28.839	57	51.76	126	59.07	4	31.71	253	17.58	12	83.30	351	22.013	50	41.20	23
Mai 10	28.896	119	50.50	112	59.11	17	29.18	247	17.46	3	79.79	364	22.063	100	40.97	7
20	29.015	177	49.38	95	59.28	30	26.71	233	17.43	7	76.15	369	22.163	149	40.90	10
30	29.192	232	48.43	73	59.58	42	24.38	211	17.50	15	72.46	364	22.312	194	41.00	30
Juni 9	29.424	282	47.70	48	60.00	52	22.27	182	17.65	24	68.82	352	22.506	235	41.30	49
19	29.706	323	47.22	22	60.52	61	20.45	149	17.89	32	65.30	330	22.741	269	41.79	66
29	30.029	357	47.00	5	61.13	70	18.96	111	18.21	40	62.00	300	23.010	298	42.45	83
Juli 9	30.386	382	47.05	31	61.83	76	17.85	71	18.61	45	59.00	261	23.308	319	43.28	97
19	30.768	399	47.36	56	62.59	80	17.14	29	19.06	50	56.39	216	23.627	332	44.25	108
29	31.167	407	47.92	81	63.39	83	16.85	14	19.56	54	54.23	163	23.959	339	45.33	115
Aug. 8	31.574	408	48.73	101	64.22	84	16.99	57	20.10	55	52.60	105	24.298	339	46.48	119
18	31.982	402	49.74	120	65.06	83	17.56	96	20.65	56	51.55	45	24.637	334	47.67	121
28	32.384	389	50.94	136	65.89	82	18.52	135	21.21	56	51.10	19	24.971	324	48.88	118
Sept. 7	32.773	372	52.30	148	66.71	78	19.87	172	21.77	52	51.29	81	25.295	309	50.06	113
17	33.145	351	53.78	158	67.49	74	21.59	205	22.29	48	52.10	142	25.604	292	51.19	105
27	33.496	325	55.36	166	68.23	68	23.64	234	22.77	43	53.52	197	25.896	270	52.24	97
Okt. 7	33.821	296	57.02	170	68.91	61	25.98	260	23.20	36	55.49	245	26.166	247	53.21	88
17	34.117	264	58.72	173	69.52	54	28.58	280	23.56	28	57.94	284	26.413	221	54.09	78
27	34.381	227	60.45	172	70.06	45	31.38	295	23.84	19	60.78	312	26.634	192	54.87	69
Nov. 6	34.608	188	62.17	170	70.51	35	34.33	304	24.03	11	63.90	329	26.826	162	55.56	60
16	34.796	145	63.87	164	70.86	24	37.37	305	24.14	2	67.19	334	26.988	128	56.16	51
25	[17] 34.941	99	65.51	155	[17] 71.10	13	40.42	300	[17] 24.16	8	70.53	324	[17] 27.116	91	56.67	43
Dez. 5	35.040	50	67.06	143	71.23	1	43.42	286	24.08	17	73.77	304	27.207	53	57.10	34
15	35.090	0	68.49	127	71.24	12	46.28	264	23.91	25	76.81	272	27.260	14	57.44	26
25	35.090	49	69.76	106	71.12	23	48.92	232	23.66	32	79.53	231	27.274	26	57.70	17
35	35.041		70.82		70.89		51.24		23.34		81.84		27.248		57.87	
Mittl. Ort	29.935		43.39		62.51		19.27		19.67		86.34		22.729		35.04	
sec δ, tg δ	1.353		+0.912		3.091		+2.924		2.368		−2.147		1.094		+0.443	
a, a'	+4.1		+11.5		+6.3		+11.3		+0.7		+11.3		+3.6		+11.3	
b, b'	+0.03		− 0.82		+0.11		− 0.83		−0.08		− 0.83		+0.02		− 0.83	

Tag	140) τ⁶ Eridani AR.		140) τ⁶ Eridani Dekl.		143) *g* Eridani AR.		143) *g* Eridani Dekl.		146) γ Hydri AR.		146) γ Hydri Dekl.		144) ζ Persei AR.		144) ζ Persei Dekl.	
1931	$3^h 43^m$		−23° 26′		$3^h 46^m$		−36° 23′		$3^h 48^m$		−74° 26′		$3^h 49^m$		+31° 40′	
Jan. 0	53.628	84	70.17	162	53.539	120	93.84	189	22.20	65	71.22	197	48.017	54	60.12	50
10	53.544	117	71.79	132	53.419	155	95.73	151	21.55	73	73.19	145	47.963	94	60.62	34
20	53.427	144	73.11	98	53.264	186	97.24	108	20.82	81	74.64	89	47.869	128	60.96	15
30	53.283	166	74.09	62	53.078	208	98.32	63	20.01	85	75.53	31	47.741	157	61.11	3
Feb. 9	53.117	180	74.71	25	52.870	222	98.95	16	19.16	87	75.84	28	47.584	175	61.08	22
19	52.937	185	74.96	12	52.648	228	99.11	31	18.29	86	75.56	85	47.409	183	60.86	41
März 1	52.752	181	74.84	50	52.420	222	98.80	76	17.43	84	74.71	137	47.226	179	60.45	56
11	52.571	167	74.34	86	52.198	206	98.04	120	16.59	79	73.34	188	47.047	164	59.89	70
21	52.404	144	73.48	121	51.992	182	96.84	161	15.80	72	71.46	233	46.883	137	59.19	79
31	52.260	113	72.27	153	51.810	148	95.23	199	15.08	62	69.13	273	46.746	102	58.40	83
Apr. 10	52.147	74	70.74	184	51.662	106	93.24	232	14.46	52	66.40	306	46.644	57	57.57	83
20	52.073	32	68.90	211	51.556	60	90.92	262	13.94	40	63.34	333	46.587	7	56.74	78
30	52.041	14	66.79	233	51.496	9	88.30	285	13.54	27	60.01	351	46.580	45	55.96	68
Mai 10	52.055	63	64.46	252	51.487	43	85.45	303	13.27	13	56.50	364	46.625	99	55.28	54
20	52.118	109	61.94	265	51.530	96	82.42	315	13.14	1	52.86	367	46.724	151	54.74	37
30	52.227	155	59.29	273	51.626	147	79.27	318	13.15	15	49.19	362	46.875	200	54.37	18
Juni 9	52.382	196	56.56	273	51.773	194	76.09	315	13.30	28	45.57	349	47.075	244	54.19	3
19	52.578	232	53.83	268	51.967	236	72.94	303	13.58	41	42.08	326	47.319	282	54.22	24
29	52.810	263	51.15	254	52.203	271	69.91	284	13.99	53	38.82	294	47.601	312	54.46	44
Juli 9	53.073	287	48.61	235	52.474	301	67.07	257	14.52	63	35.88	257	47.913	336	54.90	62
19	53.360	303	46.26	208	52.775	322	64.50	223	15.15	71	33.31	210	48.249	351	55.52	80
29	53.663	314	44.18	175	53.097	336	62.27	181	15.86	77	31.21	157	48.600	360	56.32	94
Aug. 8	53.977	316	42.43	136	53.433	342	60.46	135	16.63	82	29.64	99	48.960	362	57.26	106
18	54.293	313	41.07	94	53.775	341	59.11	83	17.45	83	28.65	39	49.322	357	58.32	114
28	54.606	304	40.13	49	54.116	332	58.28	29	18.28	82	28.26	25	49.679	347	59.46	119
Sept. 7	54.910	289	39.64	1	54.448	316	57.99	25	19.10	79	28.51	88	50.026	334	60.65	122
17	55.199	270	39.63	46	54.764	295	58.24	80	19.89	72	29.39	147	50.360	315	61.87	123
27	55.469	247	40.09	90	55.059	268	59.04	130	20.61	64	30.86	202	50.675	295	63.10	122
Okt. 7	55.716	220	40.99	130	55.327	237	60.34	176	21.25	53	32.88	250	50.970	270	64.32	118
17	55.936	191	42.29	165	55.564	202	62.10	214	21.78	40	35.38	289	51.240	243	65.50	114
27	56.127	159	43.94	193	55.766	163	64.24	245	22.18	27	38.27	316	51.483	213	66.64	110
Nov. 6	56.286	125	45.87	212	55.929	122	66.69	265	22.45	12	41.43	332	51.696	179	67.74	104
16	56.411	89	47.99	223	56.051	79	69.34	275	22.57	3	44.75	335	51.875	144	68.78	97
25	[17] 56.500	51	50.22	224	[18] 56.130	35	72.09	274	[19] 22.54	18	48.10	325	[19] 52.019	104	69.75	90
Dez. 5	56.551	13	52.46	217	56.165	9	74.83	262	22.36	33	51.35	303	52.123	62	70.65	80
15	56.564	25	54.63	202	56.156	54	77.45	242	22.03	46	54.38	271	52.185	18	71.45	70
25	56.539	62	56.65	181	56.102	95	79.87	214	21.57	59	57.09	229	52.203	26	72.15	57
35	56.477		58.46		56.007		82.01		20.98		59.38		52.177		72.72	
Mittl. Ort	52.681		68.93		52.301		90.23		17.25		63.41		47.390		48.52	
sec δ, tg δ	1.090		−0.434		1.243		−0.738		3.730		−3.594		1.175		+0.617	
a, *a′*	+2.6		+11.2		+2.2		+11.0		−1.0		+10.9		+3.8		+10.8	
b, *b′*	−0.02		− 0.83		−0.03		− 0.84		−0.13		− 0.84		+0.02		− 0.84	

Tag	145) 9 H. Camelop. AR.		145) Dekl.		147) ε Persei AR.		147) Dekl.		148) ξ Persei AR.		148) Dekl.		149) γ Eridani AR.		149) Dekl.	
1931	$3^h\,51^m$		$+60°\,54'$		$3^h\,53^m$		$+39°\,48'$		$3^h\,54^m$		$+35°\,35'$		$3^h\,54^m$		$-13°\,41'$	
Jan. 0	15.35	15	47.76	179	13.722	62	56.74	89	29.632	55	50.85	70	49.385	60	72.27	139
10	15.20	22	49.55	143	13.660	108	57.63	66	29.577	97	51.55	50	49.325	93	73.66	117
20	14.98	28	50.98	102	13.552	147	58.29	41	29.480	135	52.05	30	49.232	122	74.83	91
30	14.70	33	52.00	56	13.405	179	58.70	15	29.345	164	52.35	7	49.110	145	75.74	64
Feb. 9	14.37	35	52.56	9	13.226	199	58.85	13	29.181	185	52.42	15	48.965	162	76.38	35
19	14.02	36	52.65	37	13.027	208	58.72	39	28.996	194	52.27	38	48.803	169	76.73	6
März 1	13.66	36	52.28	82	12.819	204	58.33	65	28.802	191	51.89	59	48.634	167	76.79	24
11	13.30	32	51.46	122	12.615	187	57.68	85	28.611	176	51.30	75	48.467	155	76.55	53
21	12.98	27	50.24	156	12.428	158	56.83	102	28.435	148	50.55	89	48.312	134	76.02	82
31	12.71	21	48.68	183	12.270	119	55.81	113	28.287	111	49.66	97	48.178	106	75.20	110
Apr. 10	12.50	14	46.85	202	12.151	70	54.68	119	28.176	66	48.69	100	48.072	71	74.10	137
20	12.36	5	44.83	212	12.081	16	53.49	119	28.110	14	47.69	97	48.001	29	72.73	162
30	12.31	3	42.71	213	12.065	42	52.30	113	28.096	40	46.72	90	47.972	16	71.11	184
Mai 10	12.34	13	40.58	207	12.107	101	51.17	101	28.136	97	45.82	78	47.988	61	69.27	204
20	12.47	21	38.51	194	12.208	159	50.16	85	28.233	151	45.04	61	48.049	106	67.23	219
30	12.68	30	36.57	172	12.367	212	49.31	66	28.384	202	44.43	43	48.155	150	65.04	229
Juni 9	12.98	37	34.85	147	12.579	261	48.65	43	28.586	249	44.00	21	48.305	189	62.75	235
19	13.35	43	33.38	116	12.840	303	48.22	20	28.835	288	43.79	1	48.494	225	60.40	234
29	13.78	49	32.22	83	13.143	337	48.02	5	29.123	321	43.80	23	48.719	254	58.06	228
Juli 9	14.27	53	31.39	48	13.480	363	48.07	28	29.444	346	44.03	43	48.973	277	55.78	215
19	14.80	56	30.91	11	13.843	382	48.35	51	29.790	364	44.46	63	49.250	293	53.63	196
29	15.36	57	30.80	25	14.225	391	48.86	72	30.154	373	45.09	81	49.543	303	51.67	171
Aug. 8	15.93	59	31.05	60	14.616	395	49.58	91	30.527	376	45.90	96	49.846	307	49.96	141
18	16.52	58	31.65	94	15.011	392	50.49	107	30.903	372	46.86	108	50.153	305	48.55	106
28	17.10	57	32.59	126	15.403	382	51.56	120	31.275	363	47.94	117	50.458	297	47.49	68
Sept. 7	17.67	55	33.85	155	15.785	367	52.76	131	31.638	350	49.11	124	50.755	285	46.81	28
17	18.22	52	35.40	182	16.152	348	54.07	139	31.988	332	50.35	128	51.040	269	46.53	13
27	18.74	49	37.22	204	16.500	326	55.46	146	32.320	311	51.63	131	51.309	249	46.66	52
Okt. 7	19.23	44	39.26	225	16.826	300	56.92	150	32.631	286	52.94	131	51.558	226	47.18	88
17	19.67	39	41.51	240	17.126	270	58.42	151	32.917	258	54.25	131	51.784	200	48.06	119
27	20.06	34	43.91	252	17.396	236	59.93	151	33.175	227	55.56	128	51.984	172	49.25	146
Nov. 6	20.40	27	46.43	257	17.632	200	61.44	150	33.402	192	56.84	125	52.156	141	50.71	164
16	20.67	21	49.00	259	17.832	158	62.94	145	33.594	154	58.09	119	52.297	108	52.35	177
25	^{19}20.88	13	51.59	254	^{20}17.990	115	64.39	138	^{20}33.748	113	59.28	113	^{20}52.405	74	54.12	181
Dez. 5	21.01	6	54.13	242	18.105	67	65.77	129	33.861	68	60.41	104	52.479	37	55.93	178
15	21.07	3	56.55	223	18.172	18	67.06	115	33.929	22	61.45	92	52.516	0	57.71	169
25	21.04	10	58.78	197	18.190	32	68.21	99	33.951	25	62.37	78	52.516	37	59.40	153
35	20.94		60.75		18.158		69.20		33.926		63.15		52.479		60.93	
Mittl. Ort	14.29		31.02		13.032		43.53		28.962		38.49		48.538		73.65	
sec δ, tg δ	2.057		+1.797		1.302		+0.834		1.230		+0.716		1.029		−0.244	
a, *a'*	+5.1		+10.7		+4.0		+10.5		+3.9		+10.4		+2.8		+10.4	
b, *b'*	+0.06		− 0.85		+0.03		−0.85		+0.02		− 0.85		−0.01		− 0.85	

Tag	150) λ Tauri AR.		Dekl.		151) ν Tauri AR.		Dekl.		152) c Persei AR.		Dekl.		154) o¹ Eridani AR.		Dekl.	
1931	3h 56m		+12° 17′		3h 59m		+5° 47′		4h 3m		+47° 31′		4h 8m		−7° 0′	
Jan. 0	51.935	39	55.18	37	29.722	39	62.27	66	39.539	70	62.18	129	30.591	42	55.62	121
10	51.896	74	54.81	37	29.683	73	61.61	60	39.469	123	63.47	103	30.549	77	56.83	104
20	51.822	106	54.44	35	29.610	105	61.01	52	39.346	170	64.50	73	30.472	108	57.87	84
30	51.716	131	54.09	34	29.505	129	60.49	43	39.176	207	65.23	40	30.364	135	58.71	63
Feb. 9	51.585	149	53.75	32	29.376	147	60.06	34	38.969	232	65.63	5	30.229	153	59.34	41
19	51.436	157	53.43	28	29.229	157	59.72	25	38.737	245	65.68	29	30.076	163	59.75	17
März 1	51.279	156	53.15	24	29.072	155	59.47	13	38.492	242	65.39	61	29.913	163	59.92	7
11	51.123	145	52.91	18	28.917	145	59.34	1	38.250	225	64.78	91	29.750	154	59.85	31
21	50.978	124	52.73	10	28.772	124	59.33	13	38.025	194	63.87	116	29.596	136	59.54	55
31	50.854	93	52.63	0	28.648	95	59.46	28	37.831	151	62.71	135	29.460	109	58.99	79
Apr. 10	50.761	56	52.63	12	28.553	60	59.74	44	37.680	97	61.36	147	29.351	74	58.20	102
20	50.705	14	52.75	27	28.493	18	60.18	62	37.583	37	59.89	152	29.277	35	57.18	125
30	50.691	32	53.02	42	28.475	26	60.80	79	37.546	27	58.37	152	29.242	9	55.93	146
Mai 10	50.723	79	53.44	59	28.501	72	61.59	96	37.573	94	56.85	144	29.251	54	54.47	165
20	50.802	125	54.03	76	28.573	117	62.55	113	37.667	159	55.41	131	29.305	99	52.82	182
30	50.927	168	54.79	91	28.690	160	63.68	127	37.826	220	54.10	113	29.404	141	51.00	193
Juni 9	51.095	208	55.70	105	28.850	199	64.95	139	38.046	275	52.97	91	29.545	182	49.07	202
19	51.303	242	56.75	118	29.049	233	66.34	148	38.321	324	52.06	66	29.727	216	47.05	206
29	51.545	270	57.93	126	29.282	261	67.82	154	38.645	365	51.40	39	29.943	245	44.99	203
Juli 9	51.815	291	59.19	132	29.543	283	69.36	154	39.010	396	51.01	12	30.188	270	42.96	195
19	52.106	306	60.51	133	29.826	298	70.90	150	39.406	420	50.89	15	30.458	287	41.01	182
29	52.412	316	61.84	130	30.124	307	72.40	141	39.826	434	51.04	41	30.745	298	39.19	163
Aug. 8	52.728	317	63.14	123	30.431	310	73.81	128	40.260	440	51.45	67	31.043	303	37.56	138
18	53.045	315	64.37	112	30.741	308	75.09	112	40.700	439	52.12	89	31.346	303	36.18	110
28	53.360	307	65.49	99	31.049	300	76.21	91	41.139	432	53.01	109	31.649	297	35.08	78
Sept. 7	53.667	295	66.48	82	31.349	290	77.12	69	41.571	418	54.10	128	31.946	287	34.30	43
17	53.962	279	67.30	64	31.639	274	77.81	45	41.989	399	55.38	145	32.233	274	33.87	8
27	54.241	261	67.94	46	31.913	256	78.26	20	42.388	375	56.83	157	32.507	256	33.79	27
Okt. 7	54.502	241	68.40	28	32.169	236	78.46	2	42.763	347	58.40	169	32.763	236	34.06	59
17	54.743	217	68.68	11	32.405	213	78.44	24	43.110	315	60.09	177	32.999	213	34.65	89
27	54.960	191	68.79	4	32.618	187	78.20	42	43.425	277	61.86	183	33.212	187	35.54	113
Nov. 6	55.151	163	68.75	16	32.805	160	77.78	56	43.702	235	63.69	186	33.399	158	36.67	132
16	[21] 55.314	131	68.59	26	32.965	128	77.22	66	43.937	188	65.55	185	33.557	127	37.99	144
25	55.445	97	68.33	32	[21] 33.093	95	76.56	73	[22] 44.125	137	67.40	181	[24] 33.684	93	39.43	150
Dez. 5	55.542	61	68.01	37	33.188	59	75.83	75	44.262	82	69.21	173	33.777	57	40.93	149
15	55.603	24	67.64	39	33.247	23	75.08	75	44.344	25	70.94	159	33.834	19	42.42	143
25	55.627	15	67.25	39	33.270	15	74.33	71	44.369	33	72.53	140	33.853	18	43.85	132
35	55.612		66.86		33.255		73.62		44.336		73.93		33.835		45.17	
Mittl. Ort	51.270		47.87		29.020		56.39		38.690		47.82		29.768		58.95	
sec δ, tg δ	1.024		+0.218		1.005		+0.102		1.481		+1.092		1.008		−0.123	
a, a′	+3.3		+10.3		+3.2		+10.1		+4.3		+9.7		+2.9		+9.4	
b, b′	+0.01		− 0.86		0.00		− 0.86		+0.04		−0.87		0.00		−0.88	

Scheinbare Sternörter 1931

Tag	155) α Horologii AR.		Dekl.		156) α Reticuli AR.		Dekl.		160) υ⁴ Eridani AR.		Dekl.		162) δ Tauri AR.		Dekl.	
1931	$4^h\ 11^m$		−42° 27′		$4^h\ 13^m$		−62° 38′		$4^h\ 15^m$		−33° 57′		$4^h\ 18^m$		+17° 22′	
Jan. 0	44.276	126	52.76	223	34.64	29	51.18	238	18.142	90	58.91	209	57.917	21	63.89	14
10	44.150	169	54.99	183	34.35	36	53.56	190	18.052	130	61.00	174	57.896	61	63.75	16
20	43.981	205	56.82	138	33.99	41	55.46	139	17.922	165	62.74	135	57.835	97	63.59	17
30	43.776	235	58.20	90	33.58	44	56.85	83	17.757	193	64.09	92	57.738	127	63.42	20
Feb. 9	43.541	255	59.10	40	33.14	47	57.68	27	17.564	213	65.01	46	57.611	149	63.22	23
19	43.286	264	59.50	10	32.67	48	57.95	30	17.351	224	65.47	2	57.462	163	62.99	24
März 1	43.022	263	59.40	60	32.19	48	57.65	85	17.127	224	65.49	44	57.299	164	62.75	26
11	42.759	251	58.80	107	31.71	46	56.80	138	16.903	214	65.05	87	57.135	157	62.49	26
21	42.508	227	57.73	152	31.25	42	55.42	186	16.689	194	64.18	129	56.978	137	62.23	23
31	42.281	195	56.21	194	30.83	37	53.56	231	16.495	164	62.89	169	56.841	110	62.00	18
Apr. 10	42.086	154	54.27	231	30.46	31	51.25	270	16.331	128	61.20	203	56.731	74	61.82	12
20	41.932	107	51.96	264	30.15	24	48.55	303	16.203	84	59.17	235	56.657	32	61.70	1
30	41.825	54	49.32	290	29.91	17	45.52	329	16.119	36	56.82	262	56.625	14	61.69	11
Mai 10	41.771	1	46.42	311	29.74	8	42.23	347	16.083	14	54.20	283	56.639	61	61.80	24
20	41.772	58	43.31	326	29.66	0	38.76	360	16.097	66	51.37	299	56.700	109	62.04	39
30	41.830	113	40.05	331	29.66	9	35.16	363	16.163	115	48.38	307	56.809	154	62.43	54
Juni 9	41.943	165	36.74	330	29.75	17	31.53	356	16.278	163	45.31	308	56.963	195	62.97	68
19	42.108	214	33.44	319	29.92	25	27.97	341	16.441	205	42.23	301	57.158	231	63.65	81
29	42.322	256	30.25	302	30.17	32	24.56	318	16.646	244	39.22	287	57.389	262	64.46	92
Juli 9	42.578	293	27.23	275	30.49	38	21.38	285	16.890	275	36.35	264	57.651	287	65.38	100
19	42.871	321	24.48	240	30.87	43	18.53	244	17.165	300	33.71	234	57.938	305	66.38	105
29	43.192	343	22.08	198	31.30	48	16.09	196	17.465	318	31.37	197	58.243	317	67.43	106
Aug. 8	43.535	355	20.10	149	31.78	50	14.13	141	17.783	328	29.40	153	58.560	322	68.49	104
18	43.890	360	18.61	97	32.28	51	12.72	82	18.111	332	27.87	105	58.882	323	69.53	99
28	44.250	356	17.64	40	32.79	52	11.90	19	18.443	330	26.82	52	59.205	319	70.52	89
Sept. 7	44.606	346	17.24	19	33.31	51	11.71	44	18.773	320	26.30	2	59.524	310	71.41	79
17	44.952	328	17.43	77	33.82	47	12.15	107	19.093	304	26.32	56	59.834	298	72.20	66
27	45.280	303	18.20	132	34.29	43	13.22	167	19.397	284	26.88	108	60.132	283	72.86	53
Okt. 7	45.583	273	19.52	183	34.72	39	14.89	220	19.681	257	27.96	157	60.415	264	73.39	39
17	45.856	237	21.35	226	35.11	32	17.09	265	19.938	228	29.53	198	60.679	243	73.78	26
27	46.093	196	23.61	261	35.43	24	19.74	301	20.166	193	31.51	233	60.922	218	74.04	15
Nov. 6	46.289	151	26.22	286	35.67	17	22.75	326	20.359	155	33.84	257	61.140	190	74.19	6
16	46.440	103	29.08	301	35.84	9	26.01	337	20.514	115	36.41	273	61.330	159	74.25	2
25*)	[24]46.543	54	32.09	303	[25]35.93	0	29.38	337	[25]20.629	71	39.14	276	61.489	125	74.23	7
Dez. 5	46.597	3	35.12	294	35.93	9	32.75	324	20.700	26	41.90	271	[26]61.614	86	74.16	11
15	46.600	48	38.06	275	35.84	17	35.99	300	20.726	19	44.61	255	61.700	46	74.05	13
25	46.552	98	40.81	246	35.67	25	38.99	266	20.707	63	47.16	231	61.746	5	73.92	15
35	46.454		43.27		35.42		41.65		20.644		49.47		61.751		73.77	
Mittl. Ort	42.764		49.92		31.84		46.34		16.875		57.57		57.170		55.36	
sec δ, tg δ	1.356		−0.915		2.176		−1.933		1.206		−0.674		1.048		+0.313	
a, *a′*	+2.0		+9.1		+0.8		+9.0		+2.3		+8.8		+3.5		+8.6	
b, *b′*	−0.03		−0.89		−0.06		−0.89		−0.02		−0.90		+0.01		−0.90	

*) Bei Stern 162) lies Nov. 26

Tag	164) ε Tauri				168) α Tauri				171) α Doradus				169) ν Eridani			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$4^h 24^m$		$+19° 1'$		$4^h 31^m$		$+16° 22'$		$4^h 32^m$		$-55° 10'$		$4^h 32^m$		$-3° 29'$	
	s		"		s		"		s		"		s		"	
Jan. 0	35.870	17	52.67	6	58.333	11	27.52	19	32.518	185	75.52	257	53.075	21	27.63	115
10	35.853	58	52.61	9	58.322	52	27.33	20	32.333	242	78.09	214	53.054	59	28.78	101
20	35.795	95	52.52	11	58.270	90	27.13	20	32.091	292	80.23	166	52.995	94	29.79	84
30	35.700	126	52.41	14	58.180	121	26.93	20	31.799	331	81.89	115	52.901	124	30.63	65
Feb. 9	35.574	149	52.27	19	58.059	146	26.73	21	31.468	358	83.04	61	52.777	147	31.28	46
19	35.425	164	52.08	23	57.913	161	26.52	21	31.110	374	83.65	5	52.630	161	31.74	26
März 1	35.261	167	51.85	25	57.752	166	26.31	22	30.736	375	83.70	49	52.469	166	32.00	5
11	35.094	160	51.60	27	57.586	160	26.09	21	30.361	365	83.21	102	52.303	161	32.05	16
21	34.934	141	51.33	26	57.426	144	25.88	18	29.996	340	82.19	151	52.142	145	31.89	37
31	34.793	114	51.07	24	57.282	118	25.70	13	29.656	304	80.68	197	51.997	121	31.52	58
April 10	34.679	79	50.83	19	57.164	83	25.57	6	29.352	257	78.71	238	51.876	90	30.94	80
20	34.600	37	50.64	9	57.081	43	25.51	3	29.095	202	76.33	275	51.786	51	30.14	100
30	34.563	9	50.55	1	57.038	2	25.54	15	28.893	140	73.58	305	51.735	10	29.14	120
Mai 10	34.572	57	50.56	13	57.040	48	25.69	27	28.753	72	70.53	328	51.725	34	27.94	139
20	34.629	105	50.69	28	57.088	96	25.96	41	28.681	4	67.25	344	51.759	79	26.55	154
30	34.734	150	50.97	42	57.184	140	26.37	55	28.677	66	63.81	352	51.838	122	25.01	168
Juni 9	34.884	192	51.39	56	57.324	183	26.92	68	28.743	134	60.29	351	51.960	162	23.33	178
19	35.076	229	51.95	70	57.507	219	27.60	80	28.877	198	56.78	342	52.122	199	21.55	183
29	35.305	261	52.65	81	57.726	251	28.40	90	29.075	257	53.36	323	52.321	230	19.72	183
Juli 9	35.566	286	53.46	89	57.977	277	29.30	97	29.332	310	50.13	296	52.551	255	17.89	179
19	35.852	305	54.35	96	58.254	297	30.27	100	29.642	354	47.17	259	52.806	276	16.10	168
29	36.157	318	55.31	98	58.551	310	31.27	101	29.996	389	44.58	216	53.082	290	14.42	154
Aug. 8	36.475	324	56.29	98	58.861	318	32.28	98	30.385	414	42.42	164	53.372	298	12.88	132
18	36.799	326	57.27	93	59.179	320	33.26	91	30.799	429	40.78	109	53.670	301	11.56	107
28	37.125	323	58.20	87	59.499	318	34.17	81	31.228	434	39.69	47	53.971	300	10.49	79
Sept. 7	37.448	315	59.07	77	59.817	312	34.98	70	31.662	427	39.22	16	54.271	293	9.70	48
17	37.763	303	59.84	67	60.129	301	35.68	56	32.089	411	39.38	78	54.564	284	9.22	15
27	38.066	288	60.51	54	60.430	288	36.24	41	32.500	383	40.16	139	54.848	270	9.07	17
Okt. 7	38.354	271	61.05	42	60.718	272	36.65	27	32.883	347	41.55	194	55.118	253	9.24	49
17	38.625	250	61.47	32	60.990	252	36.92	15	33.230	301	43.49	244	55.371	233	9.73	76
27	38.875	226	61.79	21	61.242	228	37.07	3	33.531	249	45.93	283	55.604	210	10.49	100
Nov. 6	39.101	198	62.00	12	61.470	202	37.10	7	33.780	190	48.76	313	55.814	184	11.49	119
16	39.299	167	62.12	7	61.672	171	37.03	13	33.970	125	51.89	331	55.998	153	12.68	131
26	39.466	131	62.19	1	61.843	137	36.90	18	34.095	57	55.20	335	56.151	120	13.99	137
Dez. 5	[28] 39.597	94	62.20	2	[30] 61.980	98	36.72	21	[30] 34.152	12	58.55	329	[30] 56.271	83	15.36	139
15	39.691	53	62.18	5	62.078	59	36.51	22	34.140	80	61.84	311	56.354	44	16.75	135
25	39.744	10	62.13	6	62.137	16	36.29	21	34.060	146	64.95	281	56.398	5	18.10	125
35	39.754		62.07		62.153		36.08		33.914		67.76		56.403		19.35	
Mittl. Ort	35.100		43.82		57.535		19.17		30.313		72.91		52.204		32.36	
sec δ, tg δ	1.058		+0.345		1.042		+0.294		1.752		−1.438		1.002		−0.061	
a, a'	+3.5		+8.1		+3.4		+7.5		+1.3		+7.5		+3.0		+7.4	
b, b'	+0.01		−0.91		+0.01		−0.93		−0.04		−0.93		0.00		−0.93	

Tag	172) 53 Eridani AR.		Dekl.		174) τ Tauri AR.		Dekl.		173) Grb 848 AR.		Dekl.		175) 4 Camelop. AR.		Dekl.	
1931	$4^h 35^m$		$-14° 25'$		$4^h 38^m$		$+22° 49'$		$4^h 39^m$		$+75° 49'$		$4^h 42^m$		$+56° 38'$	
Jan. 0	$2\overset{s}{.}120$	32	$73\overset{''}{.}40$	162	$6\overset{s}{.}907$	6	$43\overset{''}{.}13$	15	$34\overset{s}{.}16$	24	$24\overset{''}{.}37$	266	$16\overset{s}{.}214$	46	$26\overset{''}{.}43$	189
10	2.088	71	75.02	141	6.901	49	43.28	10	33.92	39	27.03	234	16.168	119	28.32	163
20	2.017	107	76.43	115	6.852	90	43.38	6	33.53	53	29.37	192	16.049	185	29.95	134
30	1.910	137	77.58	87	6.762	124	43.44	1	33.00	65	31.29	144	15.864	240	31.29	99
Feb. 9	1.773	159	78.45	58	6.638	150	43.43	8	32.35	73	32.73	92	15.624	283	32.28	59
19	1.614	174	79.03	27	6.488	168	43.35	16	31.62	77	33.65	35	15.341	309	32.87	17
März 1	1.440	178	79.30	4	6.320	174	43.19	23	30.85	78	34.00	21	15.032	318	33.04	24
11	1.262	173	79.26	34	6.146	168	42.96	28	30.07	76	33.79	76	14.714	308	32.80	63
21	1.089	159	78.92	65	5.978	152	42.68	33	29.31	69	33.03	126	14.406	280	32.17	100
31	0.930	134	78.27	94	5.826	126	42.35	34	28.62	60	31.77	171	14.126	237	31.17	132
Apr. 10	0.796	103	77.33	121	5.700	90	42.01	32	28.02	48	30.06	208	13.889	181	29.85	157
20	0.693	65	76.12	148	5.610	49	41.69	28	27.54	33	27.98	236	13.708	113	28.28	175
30	0.628	23	74.64	172	5.561	3	41.41	20	27.21	17	25.62	255	13.595	40	26.53	185
Mai 10	0.605	21	72.92	193	5.558	45	41.21	10	27.04	0	23.07	264	13.555	38	24.68	189
20	0.626	67	70.99	209	5.603	94	41.11	2	27.04	16	20.43	265	13.593	117	22.79	186
30	0.693	111	68.90	222	5.697	141	41.13	15	27.20	33	17.78	256	13.710	192	20.93	176
Juni 9	0.804	152	66.68	230	5.838	185	41.28	28	27.53	48	15.22	241	13.902	263	19.17	160
19	0.956	190	64.38	232	6.023	223	41.56	42	28.01	63	12.81	218	14.165	328	17.57	140
29	1.146	223	62.06	227	6.246	257	41.98	55	28.64	75	10.63	190	14.493	385	16.17	116
Juli 9	1.369	250	59.79	217	6.503	284	42.53	65	29.39	86	8.73	156	14.878	432	15.01	90
19	1.619	272	57.62	200	6.787	306	43.18	72	30.25	95	7.17	119	15.310	469	14.11	62
29	1.891	288	55.62	176	7.093	320	43.90	78	31.20	102	5.98	81	15.779	497	13.49	32
Aug. 8	2.179	298	53.86	148	7.413	329	44.68	81	32.22	107	5.17	39	16.276	517	13.17	3
18	2.477	302	52.38	112	7.742	333	45.49	80	33.29	110	4.78	2	16.793	526	13.14	27
28	2.779	301	51.26	75	8.075	332	46.29	77	34.39	111	4.80	44	17.319	529	13.41	55
Sept. 7	3.080	296	50.51	34	8.407	326	47.06	72	35.50	110	5.24	85	17.848	522	13.96	82
17	3.376	285	50.17	7	8.733	316	47.78	64	36.60	107	6.09	125	18.370	510	14.78	107
27	3.661	272	50.24	49	9.049	303	48.42	57	37.67	102	7.34	162	18.880	490	15.85	131
Okt. 7	3.933	254	50.73	89	9.352	288	48.99	48	38.69	96	8.96	197	19.370	464	17.16	153
17	4.187	232	51.62	123	9.640	267	49.47	41	39.65	88	10.93	229	19.834	430	18.69	172
27	4.419	208	52.85	152	9.907	245	49.88	34	40.53	78	13.22	257	20.264	389	20.41	189
Nov. 6	4.627	180	54.37	175	10.152	217	50.22	28	41.31	66	15.79	279	20.653	341	22.30	203
16	4.807	147	56.12	191	10.369	185	50.50	24	41.97	52	18.58	296	20.994	285	24.33	213
26	4.954	112	58.03	198	10.554	150	50.74	21	42.49	37	21.54	304	21.279	222	26.46	218
Dez. 5	[30] 5.066	74	60.01	198	[1] 10.704	110	50.95	18	[2] 42.86	21	24.58	305	[2] 21.501	153	28.64	218
15	5.140	35	61.99	190	10.814	68	51.13	17	43.07	5	27.63	298	21.654	78	30.82	211
25	5.175	7	63.89	177	10.882	23	51.30	15	43.12	13	30.61	279	21.732	3	32.93	197
35	5.168		65.66		10.905		51.45		42.99		33.40		21.735		34.90	
Mittl. Ort	1.142		76.31		6.076		33.68		30.87		8.28		14.829		12.20	
sec δ, tg δ	1.033		−0.257		1.085		+0.421		4.082		+3.957		1.818		+1.519	
a, a'	+2.8		+7.3		+3.6		+7.0		+8.0		+6.9		+5.0		+6.7	
b, b'	−0.01		−0.93		+0.01		−0.94		+0.09		−0.94		+0.03		−0.94	

Tag	178) 9 Camelop. AR.		Dekl.		180) π^5 Orionis AR.		Dekl.		181) ι Aurigae AR.		Dekl.		183) ε Aurigae AR.		Dekl.	
1931	$4^h\ 47^m$		$+66°\ 13'$		$4^h\ 50^m$		$+2°\ 19'$		$4^h\ 52^m$		$+33°\ 3'$		$4^h\ 57^m$		$+43°\ 43'$	
Jan. 0	12.60	8	55.93	233	40.228	2	50.28	93	30.790	5	41.38	70	1.933	2	34.65	129
10	12.52	19	58.26	206	40.226	43	49.35	82	30.795	45	42.08	62	1.935	56	35.94	114
20	12.33	28	60.32	171	40.183	81	48.53	70	30.750	91	42.70	50	1.879	111	37.08	95
30	12.05	35	62.03	129	40.102	113	47.83	56	30.659	132	43.20	36	1.768	157	38.03	73
Feb. 9	11.70	41	63.32	84	39.989	139	47.27	42	30.527	163	43.56	19	1.611	195	38.76	46
19	11.29	44	64.16	35	39.850	157	46.85	27	30.364	184	43.75	1	1.416	219	39.22	17
März 1	10.85	45	64.51	15	39.693	165	46.58	12	30.180	194	43.76	17	1.197	230	39.39	12
11	10.40	44	64.36	63	39.528	162	46.46	3	29.986	191	43.59	33	0.967	228	39.27	39
21	9.96	41	63.73	108	39.366	149	46.49	19	29.795	175	43.26	49	0.739	210	38.88	65
31	9.55	35	62.65	147	39.217	129	46.68	35	29.620	149	42.77	60	0.529	181	38.23	87
Apr. 10	9.20	27	61.18	179	39.088	98	47.03	52	29.471	112	42.17	69	0.348	139	37.36	105
20	8.93	19	59.39	204	38.990	62	47.55	69	29.359	68	41.48	73	0.209	90	36.31	117
30	8.74	9	57.35	221	38.928	20	48.24	86	29.291	19	40.75	73	0.119	33	35.14	124
Mai 10	8.65	1	55.14	229	38.908	23	49.10	102	29.272	33	40.02	68	0.086	26	33.90	124
20	8.66	12	52.85	229	38.931	67	50.12	118	29.305	87	39.34	61	0.112	87	32.66	121
30	8.78	22	50.56	221	38.998	111	51.30	130	29.392	137	38.73	50	0.199	146	31.45	112
Juni 9	9.00	32	48.35	206	39.109	152	52.60	141	29.529	186	38.23	37	0.345	201	30.33	99
19	9.32	41	46.29	187	39.261	188	54.01	149	29.715	229	37.86	22	0.546	252	29.34	84
29	9.73	48	44.42	161	39.449	220	55.50	151	29.944	267	37.64	8	0.798	296	28.50	67
Juli 9	10.21	55	42.81	132	39.669	248	57.01	150	30.211	299	37.56	6	1.094	333	27.83	47
19	10.76	60	41.49	100	39.917	269	58.51	145	30.510	324	37.62	21	1.427	364	27.36	27
29	11.36	64	40.49	66	40.186	286	59.96	134	30.834	342	37.83	33	1.791	386	27.09	8
Aug. 8	12.00	68	39.83	30	40.472	296	61.30	118	31.176	354	38.16	44	2.177	403	27.01	11
18	12.68	70	39.53	5	40.768	301	62.48	99	31.530	362	38.60	52	2.580	411	27.12	29
28	13.38	70	39.58	40	41.069	302	63.47	76	31.892	363	39.12	60	2.991	415	27.41	46
Sept. 7	14.08	69	39.98	75	41.371	298	64.23	50	32.255	359	39.72	64	3.406	412	27.87	62
17	14.77	68	40.73	108	41.669	292	64.73	24	32.614	352	40.36	68	3.818	404	28.49	75
27	15.45	66	41.81	140	41.961	281	64.97	5	32.966	340	41.04	71	4.222	393	29.24	88
Okt. 7	16.11	62	43.21	169	42.242	267	64.92	31	33.306	325	41.75	72	4.615	375	30.12	101
17	16.73	57	44.90	196	42.509	249	64.61	55	33.631	306	42.47	74	4.990	353	31.13	111
27	17.30	52	46.86	220	42.758	229	64.06	76	33.937	281	43.21	75	5.343	325	32.24	121
Nov. 6	17.82	45	49.06	239	42.987	203	63.30	92	34.218	253	43.96	77	5.668	292	33.45	130
16	18.27	37	51.45	254	43.190	175	62.38	104	34.471	218	44.73	78	5.960	253	34.75	136
26	18.64	28	53.99	262	43.365	142	61.34	110	34.689	180	45.51	79	6.213	206	36.11	140
Dez. 5*)	[3] 18.92	19	56.61	264	[4] 43.507	105	60.24	111	[5] 34.869	136	46.30	79	6.419	155	37.51	142
15	19.11	8	59.25	258	43.612	66	59.13	108	35.005	88	47.09	76	[6] 6.574	99	38.93	140
25	19.19	2	61.83	244	43.678	25	58.05	102	35.093	38	47.85	72	6.673	39	40.33	133
35	19.17		64.27		43.703		57.03		35.131		48.57		6.712		41.66	
Mittl. Ort	10.60		40.98		39.340		44.19		29.838		30.57		0.811		22.57	
sec δ, tg δ	2.481		+2.270		1.001		+0.041		1.193		+0.651		1.384		+0.956	
a, *a'*	+6.0		+6.3		+3.1		+6.0		+3.9		+5.8		+4.3		+5.4	
b, *b'*	+0.05		−0.95		0.00		−0.95		+0.01		−0.96		+0.02		−0.96	

*) Bei Stern 183) lies Dez. 6

Tag	182) 10 Camelop. AR.		Dekl.		184) ι Tauri AR.		Dekl.	
1931	$4^h 57^m$		+60° 20′		$4^h 58^m$		+21° 29′	
Jan. 0	18.01	4	51.23	211	59.083	13	43.59	7
10	17.97	12	53.34	189	59.096	32	43.66	7
20	17.85	19	55.23	159	59.064	75	43.73	4
30	17.66	26	56.82	123	58.989	112	43.77	1
Feb. 9	17.40	31	58.05	83	58.877	143	43.78	4
19	17.09	35	58.88	39	58.734	162	43.74	8
März 1	16.74	36	59.27	5	58.572	173	43.66	14
11	16.38	35	59.22	49	58.399	172	43.52	19
21	16.03	33	58.73	90	58.227	159	43.33	22
31	15.70	28	57.83	125	58.068	136	43.11	24
April 10	15.42	23	56.58	156	57.932	104	42.87	23
20	15.19	15	55.02	179	57.828	65	42.64	19
30	15.04	8	53.23	195	57.763	22	42.45	13
Mai 10	14.96	1	51.28	203	57.741	26	42.32	5
20	14.97	9	49.25	203	57.767	73	42.27	6
30	15.06	18	47.22	198	57.840	119	42.33	16
Juni 9	15.24	26	45.24	185	57.959	164	42.49	28
19	15.50	33	43.39	168	58.123	203	42.77	40
29	15.83	39	41.71	146	58.326	238	43.17	49
Juli 9	16.22	45	40.25	120	58.564	267	43.66	58
19	16.67	50	39.05	92	58.831	290	44.24	64
29	17.17	53	38.13	62	59.121	308	44.88	68
Aug. 8	17.70	56	37.51	31	59.429	320	45.56	68
18	18.26	58	37.20	1	59.749	327	46.24	67
28	18.84	58	37.19	30	60.076	328	46.91	62
Sept. 7	19.42	58	37.49	61	60.404	327	47.53	56
17	20.00	57	38.10	89	60.731	320	48.09	47
27	20.57	55	38.99	117	61.051	310	48.56	38
Okt. 7	21.12	53	40.16	143	61.361	298	48.94	30
17	21.65	49	41.59	167	61.659	281	49.24	21
27	22.14	45	43.26	188	61.940	260	49.45	15
Nov. 6	22.59	40	45.14	206	62.200	235	49.60	9
16	22.99	34	47.20	221	62.435	204	49.69	6
26	23.33	26	49.41	230	62.639	171	49.75	4
Dez. 6	23.59	19	51.71	233	62.810	131	49.79	4
15	23.78	11	54.04	230	62.941	89	49.83	4
25	23.89	2	56.34	219	63.030	43	49.87	5
35	23.91		58.53		63.073		49.92	
Mittl. Ort	16.32		37.34		58.179		34.56	
sec δ, tg δ	2.021		+1.756		1.075		+0.394	
a, a'	+5.3		+5.4		+3.6		+5.3	
b, b'	+0.03		−0.96		+0.01		−0.96	

Tag	185) η Aurigae AR.		Dekl.		186) ε Leporis AR.		Dekl.	
1931	$5^h 1^m$		+41° 8′		$5^h 2^m$		−22° 27′	
Jan. 0	41.463	10	46.12	116	33.523	23	42.36	209
10	41.473	47	47.28	104	33.500	67	44.45	183
20	41.426	99	48.32	87	33.433	106	46.28	153
30	41.327	145	49.19	67	33.327	141	47.81	119
Feb. 9	41.182	182	49.86	43	33.186	168	49.00	84
19	41.000	208	50.29	18	33.018	188	49.84	47
März 1	40.792	219	50.47	8	32.830	197	50.31	9
11	40.573	218	50.39	34	32.633	196	50.40	28
21	40.355	202	50.05	58	32.437	185	50.12	65
31	40.153	175	49.47	77	32.252	164	49.47	100
April 10	39.978	135	48.70	93	32.088	135	48.47	133
20	39.843	89	47.77	105	31.953	100	47.14	165
30	39.754	35	46.72	110	31.853	59	45.49	191
Mai 10	39.719	22	45.62	111	31.794	15	43.58	216
20	39.741	80	44.51	108	31.779	31	41.42	235
30	39.821	137	43.43	99	31.810	77	39.07	250
Juni 9	39.958	190	42.44	87	31.887	120	36.57	258
19	40.148	240	41.57	73	32.007	160	33.99	261
29	40.388	282	40.84	57	32.167	198	31.38	255
Juli 9	40.670	318	40.27	39	32.365	229	28.83	243
19	40.988	348	39.88	21	32.594	256	26.40	224
29	41.336	370	39.67	4	32.850	277	24.16	197
Aug. 8	41.706	387	39.63	12	33.127	293	22.19	165
18	42.093	396	39.75	29	33.420	302	20.54	126
28	42.489	399	40.04	43	33.722	307	19.28	82
Sept. 7	42.888	398	40.47	55	34.029	306	18.46	35
17	43.286	391	41.02	67	34.335	300	18.11	12
27	43.677	381	41.69	78	34.635	290	18.23	62
Okt. 7	44.058	365	42.47	88	34.925	275	18.85	107
17	44.423	344	43.35	97	35.200	256	19.92	148
27	44.767	319	44.32	105	35.456	232	21.40	185
Nov. 6	45.086	288	45.37	113	35.688	203	23.25	212
16	45.374	250	46.50	119	35.891	171	25.37	233
26	45.624	206	47.69	123	36.062	134	27.70	244
Dez. 6	45.830	158	48.92	125	36.196	93	30.14	246
15	45.988	103	50.17	123	36.289	50	32.60	239
25	46.091	48	51.40	119	36.339	5	34.99	223
35	46.139		52.59		36.344		37.22	
Mittl. Ort	40.364		34.53		32.380		45.34	
sec δ, tg δ	1.328		+0.874		1.082		−0.413	
a, a'	+4.2		+5.0		+2.5		+5.0	
b, b'	+0.01		−0.97		−0.01		−0.97	

Tag	188) β Eridani AR.		188) β Eridani Dekl.		192) μ Aurigae AR.		192) μ Aurigae Dekl.		191) 19 H. Camelop. AR.		191) 19 H. Camelop. Dekl.		194) β Orionis AR.		194) β Orionis Dekl.	
1931	$5^h\ 4^m$		$-5°\ 10'$		$5^h\ 8^m$		$+38°\ 24'$		$5^h\ 11^m$		$+79°\ 9'$		$5^h\ 11^m$		$-8°\ 16'$	
Jan. 0	28.373	2	22.47	135	43.314	20	27.18	102	13.98	18	36.75	292	14.246	6	43.32	153
10	28.375	39	23.82	119	43.334	36	28.20	93	13.80	41	39.67	267	14.252	37	44.85	135
20	28.336	78	25.01	100	43.298	87	29.13	79	13.39	61	42.34	231	14.215	78	46.20	113
30	28.258	113	26.01	80	43.211	133	29.92	62	12.78	77	44.65	187	14.137	113	47.33	91
Feb. 9	28.145	140	26.81	58	43.078	170	30.54	42	12.01	90	46.52	137	14.024	141	48.24	67
19	28.005	160	27.39	36	42.908	196	30.96	19	11.11	100	47.89	81	13.883	162	48.91	41
März 1	27.845	170	27.75	14	42.712	209	31.15	4	10.11	104	48.70	23	13.721	173	49.32	16
11	27.675	170	27.89	9	42.503	209	31.11	26	9.07	103	48.93	34	13.548	173	49.48	10
21	27.505	159	27.80	31	42.294	196	30.85	48	8.04	98	48.59	89	13.375	164	49.38	35
31	27.346	140	27.49	54	42.098	171	30.37	66	7.06	88	47.70	140	13.211	146	49.03	60
Apr. 10	27.206	111	26.95	76	41.927	134	29.71	80	6.18	75	46.30	184	13.065	118	48.43	84
20	27.095	77	26.19	97	41.793	90	28.91	91	5.43	57	44.46	221	12.947	85	47.59	108
30	27.018	38	25.22	118	41.703	39	28.00	95	4.86	39	42.25	248	12.862	46	46.51	129
Mai 10	26.980	5	24.04	137	41.664	15	27.05	97	4.47	18	39.77	266	12.816	4	45.22	150
20	26.985	48	22.67	153	41.679	71	26.08	93	4.29	4	37.11	275	12.812	40	43.72	166
30	27.033	91	21.14	166	41.750	125	25.15	85	4.33	24	34.36	275	12.852	83	42.06	181
Juni 9	27.124	133	19.48	177	41.875	177	24.30	74	4.57	45	31.61	268	12.935	123	40.25	190
19	27.257	170	17.71	183	42.052	224	23.56	62	5.02	65	28.93	252	13.058	162	38.35	196
29	27.427	203	15.88	183	42.276	267	22.94	47	5.67	83	26.41	229	13.220	196	36.39	196
Juli 9	27.630	233	14.05	178	42.543	302	22.47	32	6.50	98	24.12	201	13.416	226	34.43	190
19	27.863	256	12.27	168	42.845	331	22.15	16	7.48	113	22.11	169	13.642	250	32.53	179
29	28.119	273	10.59	153	43.176	354	21.99	2	8.61	123	20.42	133	13.892	269	30.74	162
Aug. 8	28.392	287	9.06	132	43.530	370	21.97	13	9.84	132	19.09	93	14.161	283	29.12	138
18	28.679	295	7.74	106	43.900	380	22.10	26	11.16	139	18.16	52	14.444	293	27.74	111
28	28.974	298	6.68	77	44.280	385	22.36	38	12.55	142	17.64	10	14.737	297	26.63	78
Sept. 7	29.272	297	5.91	44	44.665	384	22.74	47	13.97	144	17.54	33	15.034	297	25.85	44
17	29.569	292	5.47	10	45.049	380	23.21	57	15.41	143	17.87	76	15.331	294	25.41	6
27	29.861	283	5.37	25	45.429	370	23.78	65	16.84	139	18.63	117	15.625	285	25.35	32
Okt. 7	30.144	271	5.62	58	45.799	356	24.43	73	18.23	132	19.80	157	15.910	274	25.67	67
17	30.415	254	6.20	88	46.155	338	25.16	80	19.55	123	21.37	194	16.184	258	26.34	99
27	30.669	234	7.08	114	46.493	315	25.96	86	20.78	112	23.31	229	16.442	239	27.33	129
Nov. 6	30.903	210	8.22	135	46.808	285	26.82	93	21.90	98	25.60	258	16.681	214	28.62	151
16	31.113	181	9.57	149	47.093	250	27.75	99	22.88	81	28.18	283	16.895	186	30.13	167
26	31.294	149	11.06	158	47.343	210	28.74	104	23.69	62	31.01	301	17.081	153	31.80	176
Dez. 6	31.443	112	12.64	159	47.553	162	29.78	106	24.31	41	34.02	310	17.234	116	33.56	178
15	31.555	72	14.23	156	47.715	111	30.84	106	24.72	18	37.12	311	17.350	75	35.34	174
25	31.627	30	15.79	146	47.826	56	31.90	103	24.90	5	40.23	300	17.425	33	37.08	164
35	31.657		17.25		47.882		32.93		24.85		43.23		17.458		38.72	
Mittl. Ort	27.410		27.75		42.224		16.17		8.86		22.37		13.248		48.38	
sec δ, tg δ	1.004		—0.091		1.276		+0.793		5.315		+5.220		1.011		—0.146	
a, a'	+3.0		+4.8		+4.1		+4.4		+9.9		+4.2		+2.9		+4.2	
b, b'	0.00		—0.97		+0.01		—0.98		+0.07		—0.98		0.00		—0.98	

Scheinbare Sternörter 1931

Tag	193) α Aurigae				196) ϑ Doradus				201) γ Orionis				202) β Tauri			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	5ʰ 11ᵐ		+45° 55′		5ʰ 13ᵐ		−67° 15′		5ʰ 21ᵐ		+6° 17′		5ʰ 21ᵐ		+28° 33′	
Jan. 0	36.562	18	58.76	142	51.90	27	46.13	300	26.710	27	25.44	81	56.746	36	12.44	46
10	36.580	43	60.18	129	51.63	35	49.13	263	26.737	17	24.63	71	56.782	14	12.90	44
20	36.537	103	61.47	112	51.28	44	51.76	219	26.720	59	23.92	59	56.768	63	13.34	40
30	36.434	154	62.59	89	50.84	51	53.95	169	26.661	97	23.33	48	56.705	106	13.74	32
Feb. 9	36.280	195	63.48	62	50.33	56	55.64	116	26.564	129	22.85	37	56.599	141	14.06	23
19	36.085	225	64.10	32	49.77	59	56.80	61	26.435	150	22.48	25	56.458	168	14.29	12
März 1	35.860	240	64.42	1	49.18	61	57.41	5	26.285	164	22.23	14	56.290	182	14.41	1
11	35.620	241	64.43	29	48.57	61	57.46	50	26.121	166	22.09	3	56.108	186	14.40	13
21	35.379	226	64.14	57	47.96	58	56.96	103	25.955	159	22.06	9	55.922	176	14.27	25
31	35.153	199	63.57	83	47.38	55	55.93	153	25.796	141	22.15	21	55.746	157	14.02	35
Apr. 10	34.954	159	62.74	104	46.83	49	54.40	200	25.655	114	22.36	33	55.589	125	13.67	41
20	34.795	109	61.70	120	46.34	43	52.40	241	25.541	81	22.69	47	55.464	87	13.26	45
30	34.686	53	60.50	130	45.91	35	49.99	278	25.460	43	23.16	60	55.377	43	12.81	47
Mai 10	34.633	8	59.20	135	45.56	26	47.21	307	25.417	1	23.76	74	55.334	4	12.34	44
20	34.641	69	57.85	134	45.30	17	44.14	330	25.416	43	24.50	87	55.338	54	11.90	39
30	34.710	131	56.51	129	45.13	7	40.84	345	25.459	86	25.37	99	55.392	103	11.51	31
Juni 9	34.841	188	55.22	119	45.06	3	37.39	352	25.545	127	26.36	109	55.495	149	11.20	23
19	35.029	242	54.03	106	45.09	13	33.87	350	25.672	165	27.45	116	55.644	192	10.97	12
29	35.271	289	52.97	89	45.22	22	30.37	337	25.837	200	28.61	120	55.836	230	10.85	2
Juli 9	35.560	330	52.08	71	45.44	31	27.00	317	26.037	229	29.81	121	56.066	263	10.83	7
19	35.890	364	51.37	52	45.75	39	23.83	286	26.266	253	31.02	118	56.329	291	10.90	17
29	36.254	390	50.85	33	46.14	46	20.97	247	26.519	273	32.20	111	56.620	312	11.07	24
Aug. 8	36.644	409	50.52	13	46.60	51	18.50	200	26.792	287	33.31	99	56.932	328	11.31	30
18	37.053	422	50.39	7	47.11	56	16.50	145	27.079	297	34.30	83	57.260	339	11.61	34
28	37.475	428	50.46	24	47.67	58	15.05	86	27.376	302	35.13	63	57.599	345	11.95	36
Sept. 7	37.903	429	50.70	42	48.25	60	14.19	22	27.678	303	35.76	42	57.944	347	12.31	36
17	38.332	424	51.12	59	48.85	59	13.97	43	27.981	301	36.18	19	58.291	344	12.67	35
27	38.756	414	51.71	74	49.44	57	14.40	108	28.282	295	36.37	5	58.635	337	13.02	34
Okt. 7	39.170	400	52.45	88	50.01	52	15.48	169	28.577	286	36.32	29	58.972	328	13.36	32
17	39.570	379	53.33	103	50.53	47	17.17	224	28.863	273	36.03	49	59.300	313	13.68	32
27	39.949	352	54.36	115	51.00	40	19.41	272	29.136	256	35.54	68	59.613	295	14.00	31
Nov. 6	40.301	319	55.51	127	51.40	32	22.13	311	29.392	233	34.86	82	59.908	270	14.31	33
16	40.620	279	56.78	138	51.72	22	25.24	337	29.625	207	34.04	92	60.178	241	14.64	34
26	40.899	233	58.16	144	51.94	12	28.61	352	29.832	175	33.12	98	60.419	205	14.98	37
Dez. 6	41.132	179	59.60	149	52.06	1	32.13	353	30.007	139	32.14	98	60.624	164	15.35	40
15	[10] 41.311	121	61.09	150	[10] 52.07	10	35.66	343	[12] 30.146	99	31.16	95	[12] 60.788	118	15.75	42
25	41.432	59	62.59	145	51.97	20	39.09	322	30.245	55	30.21	88	60.906	69	16.17	44
35	41.491		64.04		51.77		42.31		30.300		29.33		60.975		16.61	
Mittl. Ort	35.314		47.01		48.33		46.55		25.759		18.47		55.721		2.94	
sec δ, tg δ	1.438		+1.033		2.587		−2.386		1.006		+0.110		1.138		+0.544	
a, a'	+4.4		+4.2		−0.1		+4.0		+3.2		+3.4		+3.8		+3.3	
b, b'	+0.01		−0.98		−0.03		−0.98		0.00		−0.99		+0.01		−0.99	

Tag	203) 17 Camelop. AR.	Diff.	203) Dekl.	Diff.	206) δ Orionis AR.	Diff.	206) Dekl.	Diff.	207) α Leporis AR.	Diff.	207) Dekl.	Diff.	205) Grb 966 AR.	Diff.	205) Dekl.	Diff.
1931	5h 23m		+63° 0′		5h 28m		−0° 20′		5h 29m		−17° 51′		5h 30m		+75° 0′	
Jan. 0	40.93	0	56.06	231	29.810	28	49.67	119	42.295	9	69.31	204	33.18	3	18.70	283
10	40.93	8	58.37	214	29.838	16	50.86	105	42.304	37	71.35	183	33.15	21	21.53	264
20	40.85	18	60.51	188	29.822	58	51.91	89	42.267	79	73.18	157	32.94	35	24.17	234
30	40.67	26	62.39	155	29.764	96	52.80	72	42.188	117	74.75	127	32.59	49	26.51	195
Feb. 9	40.41	32	63.94	117	29.668	128	53.52	55	42.071	149	76.02	95	32.10	61	28.46	151
19	40.09	36	65.11	73	29.540	151	54.07	37	41.922	172	76.97	62	31.49	68	29.97	99
März 1	39.73	39	65.84	27	29.389	166	54.44	18	41.750	186	77.59	28	30.81	72	30.96	45
11	39.34	40	66.11	19	29.223	169	54.62	0	41.564	190	77.87	6	30.09	74	31.41	9
21	38.94	38	65.92	63	29.054	162	54.62	18	41.374	184	77.81	39	29.35	71	31.32	63
31	38.56	34	65.29	104	28.892	146	54.44	35	41.190	167	77.42	72	28.64	66	30.69	114
Apr. 10	38.22	29	64.25	140	28.746	121	54.09	54	41.023	142	76.70	103	27.98	56	29.55	158
20	37.93	21	62.85	170	28.625	89	53.55	71	40.881	111	75.67	132	27.42	45	27.97	196
30	37.72	14	61.15	192	28.536	52	52.84	89	40.770	73	74.35	159	26.97	31	26.01	225
Mai 10	37.58	5	59.23	207	28.484	11	51.95	106	40.697	31	72.76	184	26.66	17	23.76	247
20	37.53	5	57.16	214	28.473	32	50.89	120	40.666	12	70.92	203	26.49	1	21.29	260
30	37.58	13	55.02	215	28.505	74	49.69	133	40.678	55	68.89	220	26.48	14	18.69	264
Juni 9	37.71	22	52.87	209	28.579	115	48.36	143	40.733	97	66.69	231	26.62	29	16.05	260
19	37.93	31	50.78	196	28.694	152	46.93	150	40.830	138	64.38	235	26.91	44	13.45	249
29	38.24	38	48.82	179	28.846	188	45.43	153	40.968	175	62.03	235	27.35	57	10.96	231
Juli 9	38.62	44	47.03	157	29.034	218	43.90	151	41.143	207	59.68	227	27.92	69	8.65	209
19	39.06	50	45.46	132	29.252	242	42.39	144	41.350	235	57.41	210	28.61	80	6.56	180
29	39.56	55	44.14	104	29.494	263	40.95	133	41.585	258	55.31	189	29.41	88	4.76	148
Aug. 8	40.11	58	43.10	74	29.757	279	39.62	115	41.843	276	53.42	162	30.29	96	3.28	113
18	40.69	61	42.36	43	30.036	289	38.47	95	42.119	289	51.80	127	31.25	101	2.15	76
28	41.30	63	41.93	12	30.325	296	37.52	69	42.408	297	50.53	89	32.26	104	1.39	37
Sept. 7	41.93	63	41.81	19	30.621	299	36.83	42	42.705	301	49.64	45	33.30	107	1.02	2
17	42.56	63	42.00	51	30.920	297	36.41	12	43.006	300	49.19	1	34.37	106	1.04	43
27	43.19	62	42.51	83	31.217	292	36.29	18	43.306	295	49.18	45	35.43	105	1.47	82
Okt. 7	43.81	60	43.34	112	31.509	284	36.47	48	43.601	285	49.63	89	36.48	102	2.29	121
17	44.41	57	44.46	140	31.793	272	36.95	75	43.886	271	50.52	130	37.50	96	3.50	159
27	44.98	53	45.86	167	32.065	254	37.70	99	44.157	252	51.82	165	38.46	89	5.09	193
Nov. 6	45.51	47	47.53	191	32.319	234	38.69	117	44.409	227	53.47	194	39.35	79	7.02	225
16	45.98	41	49.44	212	32.553	207	39.86	130	44.636	198	55.41	216	40.14	68	9.27	251
26	46.39	34	51.56	227	32.760	176	41.16	138	44.834	165	57.57	229	40.82	54	11.78	273
Dez. 6	46.73	25	53.83	237	32.936	139	42.54	140	44.999	125	59.86	233	41.36	40	14.51	286
15	46.98	17	56.20	240	33.075	99	43.94	136	45.124	83	62.19	229	41.76	25	17.37	291
25	47.15	7	58.60	236	33.174	57	45.30	128	45.207	38	64.48	218	42.01	7	20.28	288
35	47.22		60.96		33.231		46.58		45.245		66.66		42.08		23.16	
Mittl. Ort	38.83		43.45		28.827		55.99		41.178		73.98		29.23		5.82	
sec δ, tg δ	2.204		+1.964		1.000		−0.006		1.051		−0.322		3.864		+3.732	
a, *a′*	+5.7		+3.2		+3.1		+2.7		+2.6		+2.6		+8.0		+2.6	
b, *b′*	+0.02		−0.99		0.00		−0.99		0.00		−0.99		+0.03		−0.99	

Tag	209) ι Orionis AR.		209) ι Orionis Dekl.		210) ε Orionis AR.		210) ε Orionis Dekl.		212) β Doradus AR.		212) β Doradus Dekl.		211) ζ Tauri AR.		211) ζ Tauri Dekl.	
1931	$5^h\,32^m$		−5° 56′		$5^h\,32^m$		−1° 14′		$5^h\,32^m$		−62° 31′		$5^h\,33^m$		+21° 6′	
Jan. 0	4.458	26	68.54	149	43.677	31	34.60	125	64.34	17	62.90	318	32.212	46	15.59	2
10	4.484	19	70.03	133	43.708	13	35.85	111	64.17	25	66.08	284	32.258	3	15.61	6
20	4.465	60	71.36	114	43.695	56	36.96	94	63.92	32	68.92	244	32.255	49	15.67	7
30	4.405	99	72.50	92	43.639	94	37.90	76	63.60	38	71.36	197	32.206	91	15.74	7
Feb. 9	4.306	131	73.42	69	43.545	127	38.66	58	63.22	44	73.33	145	32.115	127	15.81	6
19	4.175	154	74.11	47	43.418	151	39.24	39	62.78	48	74.78	92	31.988	154	15.87	3
März 1	4.021	169	74.58	23	43.267	165	39.63	20	62.30	49	75.70	37	31.834	170	15.90	1
11	3.852	173	74.81	1	43.102	169	39.83	1	61.81	50	76.07	17	31.664	175	15.89	6
21	3.679	167	74.80	24	42.933	164	39.84	18	61.31	49	75.90	72	31.489	168	15.83	9
31	3.512	152	74.56	47	42.769	148	39.66	37	60.82	46	75.18	123	31.321	151	15.74	13
Apr. 10	3.360	127	74.09	69	42.621	124	39.29	55	60.36	42	73.95	171	31.170	125	15.61	13
20	3.233	96	73.40	91	42.497	92	38.74	74	59.94	37	72.24	215	31.045	91	15.48	12
30	3.137	59	72.49	112	42.405	56	38.00	92	59.57	30	70.09	255	30.954	50	15.36	10
Mai 10	3.078	19	71.37	130	42.349	15	37.08	108	59.27	23	67.54	288	30.904	5	15.26	4
20	3.059	23	70.07	148	42.334	27	36.00	124	59.04	16	64.66	314	30.899	40	15.22	2
30	3.082	66	68.59	161	42.361	70	34.76	136	58.88	8	61.52	334	30.939	86	15.24	10
Juni 9	3.148	107	66.98	172	42.431	110	33.40	147	58.80	1	58.18	344	31.025	130	15.34	18
19	3.255	145	65.26	178	42.541	148	31.93	154	58.81	9	54.74	347	31.155	170	15.52	27
29	3.400	180	63.48	180	42.689	183	30.39	155	58.90	17	51.27	340	31.325	207	15.79	34
Juli 9	3.580	210	61.68	176	42.872	214	28.84	154	59.07	25	47.87	324	31.532	239	16.13	40
19	3.790	237	59.92	166	43.086	238	27.30	147	59.32	31	44.63	297	31.771	266	16.53	44
29	4.027	257	58.26	152	43.324	260	25.83	134	59.63	37	41.66	262	32.037	287	16.97	46
Aug. 8	4.284	275	56.74	131	43.584	276	24.49	118	60.00	43	39.04	218	32.324	304	17.43	46
18	4.559	286	55.43	105	43.860	288	23.31	96	60.43	47	36.86	167	32.628	316	17.89	43
28	4.845	293	54.38	76	44.148	295	22.35	70	60.90	49	35.19	108	32.944	323	18.32	38
Sept. 7	5.138	297	53.62	43	44.443	298	21.65	41	61.39	51	34.11	46	33.267	326	18.70	30
17	5.435	296	53.19	8	44.741	297	21.24	11	61.90	51	33.65	18	33.593	326	19.00	22
27	5.731	292	53.11	27	45.038	293	21.13	21	62.41	50	33.83	84	33.919	322	19.22	12
Okt. 7	6.023	283	53.38	62	45.331	285	21.34	51	62.91	48	34.67	148	34.241	313	19.34	4
17	6.306	271	54.00	94	45.616	273	21.85	79	63.39	44	36.15	205	34.554	302	19.38	3
27	6.577	254	54.94	121	45.889	258	22.64	103	63.83	38	38.20	257	34.856	286	19.35	9
Nov. 6	6.831	233	56.15	144	46.147	236	23.67	122	64.21	32	40.77	299	35.142	265	19.26	13
16	7.064	206	57.59	160	46.383	209	24.89	137	64.53	24	43.76	331	35.407	237	19.13	15
26	7.270	175	59.19	170	46.592	179	26.26	144	64.77	16	47.07	350	35.644	205	18.98	13
Dez. 6	7.445	138	60.89	173	46.771	143	27.70	146	64.93	7	50.57	357	35.849	167	18.85	11
15	7.583	97	62.62	169	46.914	103	29.16	143	65.00	2	54.14	352	36.016	124	18.74	7
25	7.680	55	64.31	160	47.017	59	30.59	135	64.98	11	57.66	336	36.140	77	18.67	3
35	7.735		65.91		47.076		31.94		64.87		61.02		36.217		18.64	
Mittl. Ort	3.443		74.37		42.684		40.89		61.43		65.20		31.205		7.13	
sec δ, tg δ	1.005		−0.104		1.000		−0.022		2.168		−1.924		1.072		+0.386	
a, a'	+2.9		+2.4		+3.0		+2.4		+0.5		+2.4		+3.6		+2.3	
b, b'	0.00		−0.99		0.00		−0.99		−0.02		−0.99		0.00		−0.99	

Tag	215) α Columbae AR.	Δ	Dekl.	Δ	216) ο Aurigae AR.	Δ	Dekl.	Δ
1931	$5^h 37^m$		−34° 6′		$5^h 40^m$		+49° 47′	
Jan. 0	10.356		32.50		34.720		63.70	
10	10.341	15	35.21	271	34.776	56	65.38	168
20	10.275	66	37.64	243	34.761	15	66.97	159
30	10.162	113	39.74	210	34.679	82	68.41	144
Feb. 9	10.006	156	41.46	172	34.537	142	69.64	123
19	9.815	191	42.76	130	34.343	194	70.61	97
März 1	9.598	217	43.63	87	34.111	232	71.27	66
11	9.366	232	44.04	41	33.854	257	71.60	33
21	9.128	238	43.99	5	33.589	265	71.60	0
31	8.897	231	43.50	49	33.332	257	71.26	34
Apr. 10	8.682	215	42.58	92	33.097	235	70.61	65
20	8.492	190	41.25	133	32.899	198	69.68	93
30	8.336	156	39.54	171	32.748	151	68.52	116
Mai 10	8.219	117	37.49	205	32.653	95	67.19	133
20	8.147	72	35.14	235	32.619	34	65.74	145
30	8.122	25	32.54	260	32.649	30	64.22	152
Juni 9	8.146	24	29.76	278	32.744	95	62.69	153
19	8.217	71	26.85	291	32.901	157	61.21	148
29	8.334	117	23.90	295	33.118	217	59.81	140
Juli 9	8.495	161	20.99	291	33.388	270	58.54	127
19	8.694	199	18.19	280	33.705	317	57.41	113
29	8.928	234	15.58	261	34.063	358	56.46	95
Aug. 8	9.192	264	13.26	232	34.454	391	55.69	77
18	9.480	288	11.30	196	34.871	417	55.12	57
28	9.787	307	9.77	153	35.309	438	54.75	37
Sept. 7	10.106	319	8.72	105	35.760	451	54.59	16
17	10.432	326	8.21	51	36.219	459	54.63	4
27	10.759	327	8.25	4	36.679	460	54.86	23
Okt. 7	11.081	322	8.86	61	37.134	455	55.28	42
17	11.392	311	10.02	116	37.580	446	55.91	63
27	11.686	294	11.68	166	38.009	429	56.74	83
Nov. 6	11.956	270	13.80	212	38.414	405	57.75	101
16	12.197	241	16.29	249	38.788	374	58.94	119
26	12.403	206	19.06	277	39.123	335	60.29	135
Dez. 6	12.567	164	22.01	295	39.410	287	61.78	149
16	(16) 12.686	119	25.02	301	(17) 39.641	231	63.38	160
25	12.755	69	28.01	299	39.809	168	65.04	166
35	12.772	17	30.87	286	39.909	100	66.71	167
Mittl. Ort	8.957		36.34		33.212		53.02	
sec δ, tg δ	1.208		−0.677		1.549		+1.183	
a, *a*′	+2.2		+2.0		+4.6		+1.7	
b, *b*′	0.00		−0.99		+0.01		−1.00	

Tag	219) ζ Leporis AR.	Δ	Dekl.	Δ	220) κ Orionis AR.	Δ	Dekl.	Δ
1931	$5^h 43^m$		−14° 50′		$5^h 44^m$		−9° 41′	
Jan. 0	50.800		41.89		30.070		28.62	
10	50.827	27	43.87	198	30.103	33	30.35	173
20	50.807	20	45.65	178	30.090	13	31.90	155
30	50.743	64	47.19	154	30.034	56	33.24	134
Feb. 9	50.639	104	48.45	126	29.938	96	34.34	110
19	50.502	137	49.42	97	29.809	129	35.18	84
März 1	50.339	163	50.09	67	29.654	155	35.76	58
11	50.160	179	50.44	35	29.483	171	36.07	31
21	49.975	185	50.47	3	29.305	178	36.11	4
31	49.795	180	50.19	28	29.132	173	35.88	23
Apr. 10	49.628	167	49.62	57	28.972	160	35.39	49
20	49.484	144	48.75	87	28.835	137	34.65	74
30	49.370	114	47.60	115	28.728	107	33.66	99
Mai 10	49.291	79	46.19	141	28.656	72	32.44	122
20	49.251	40	44.55	164	28.623	33	31.02	142
30	49.254	3	42.71	184	28.632	9	29.41	161
Juni 9	49.300	46	40.70	201	28.683	51	27.66	175
19	49.387	87	38.58	212	28.775	92	25.79	187
29	49.514	127	36.40	218	28.905	130	23.86	193
Juli 9	49.677	163	34.22	218	29.071	166	21.92	194
19	49.874	197	32.10	212	29.269	198	20.02	190
29	50.099	225	30.10	200	29.495	226	18.22	180
Aug. 8	50.347	248	28.29	181	29.744	249	16.59	163
18	50.614	267	26.74	155	30.010	266	15.18	141
28	50.896	282	25.50	124	30.291	281	14.05	113
Sept. 7	51.188	292	24.62	88	30.581	290	13.25	80
17	51.486	298	24.15	47	30.877	296	12.80	45
27	51.785	299	24.09	6	31.174	297	12.73	7
Okt. 7	52.081	296	24.47	38	31.469	295	13.05	32
17	52.370	289	25.28	81	31.757	288	13.75	70
27	52.647	277	26.47	119	32.034	277	14.81	106
Nov. 6	52.908	261	28.01	154	32.296	262	16.18	137
16	53.148	240	29.84	183	32.537	241	17.80	162
26	53.359	211	31.88	204	32.751	214	19.61	181
Dez. 6	53.539	180	34.06	218	32.935	184	21.53	192
16	(18) 53.681	142	36.28	222	(18) 33.082	147	23.50	197
25	53.781	100	38.48	220	33.188	106	25.43	193
35	53.837	56	40.58	210	33.250	62	27.28	185
Mittl. Ort	49.703		47.32		29.015		34.44	
sec δ, tg δ	1.035		−0.265		1.014		−0.171	
a, *a*′	+2.7		+1.4		+2.8		+1.4	
b, *b*′	0.00		−1.00		0.00		−1.00	

Tag	224) α Orionis				225) δ Aurigae				227) β Aurigae				228) ϑ Aurigae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$5^h\ 51^m$		$+7°\ 23'$		$5^h\ 53^m$		$+54°\ 16'$		$5^h\ 54^m$		$+44°\ 56'$		$5^h\ 55^m$		$+37°\ 12'$	
	s		"		s		"		s		"		s		"	
Jan. 0	27.149	56	51.66	82	52.486	75	64.06	192	29.473	76	41.89	141	2.219	75	43.21	96
10	27.205	9	50.84	72	52.561	3	65.98	184	29.549	11	43.30	137	2.294	16	44.17	95
20	27.214	37	50.12	59	52.558	79	67.82	170	29.560	53	44.67	128	2.310	40	45.12	90
30	27.177	78	49.53	47	52.479	148	69.52	148	29.507	112	45.95	112	2.270	93	46.02	81
Feb. 9	27.099	114	49.06	35	52.331	208	71.00	121	29.395	162	47.07	92	2.177	139	46.83	67
19	26.985	141	48.71	24	52.123	253	72.21	88	29.233	200	47.99	68	2.038	173	47.50	49
März 1	26.844	160	48.47	13	51.870	283	73.09	51	29.033	226	48.67	40	1.865	197	47.99	29
11	26.684	167	48.34	3	51.587	297	73.60	14	28.807	237	49.07	11	1.668	207	48.28	9
21	26.517	164	48.31	7	51.290	291	73.74	24	28.570	234	49.18	17	1.461	203	48.37	13
31	26.353	151	48.38	18	50.999	270	73.50	60	28.336	217	49.01	45	1.258	189	48.24	32
Apr. 10	26.202	129	48.56	28	50.729	235	72.90	93	28.119	186	48.56	70	1.069	161	47.92	50
20	26.073	99	48.84	40	50.494	187	71.97	121	27.933	145	47.86	91	0.908	124	47.42	65
30	25.974	64	49.24	51	50.307	128	70.76	144	27.788	96	46.95	107	0.784	81	46.77	76
Mai 10	25.910	24	49.75	62	50.179	62	69.32	160	27.692	41	45.88	119	0.703	31	46.01	83
20	25.886	18	50.37	74	50.117	7	67.72	171	27.651	16	44.69	126	0.672	20	45.18	86
30	25.904	60	51.11	84	50.124	77	66.01	176	27.667	75	43.43	127	0.692	72	44.32	86
Juni 9	25.964	101	51.95	93	50.201	146	64.25	175	27.742	132	42.16	126	0.764	123	43.46	82
19	26.065	139	52.88	99	50.347	211	62.50	169	27.874	186	40.90	119	0.887	172	42.64	77
29	26.204	175	53.87	104	50.558	271	60.81	159	28.060	235	39.71	110	1.059	215	41.87	68
Juli 9	26.379	206	54.91	104	50.829	326	59.22	145	28.295	280	38.61	99	1.274	254	41.19	59
19	26.585	233	55.95	102	51.155	372	57.77	127	28.575	318	37.62	86	1.528	289	40.60	49
29	26.818	255	56.97	94	51.527	413	56.50	108	28.893	350	36.76	72	1.817	316	40.11	39
Aug. 8	27.073	273	57.91	84	51.940	444	55.42	88	29.243	375	36.04	56	2.133	339	39.72	29
18	27.346	287	58.75	69	52.384	471	54.54	66	29.618	396	35.48	41	2.472	356	39.43	20
28	27.633	297	59.44	51	52.855	488	53.88	42	30.014	411	35.07	26	2.828	369	39.23	11
Sept. 7	27.930	302	59.95	30	53.343	500	53.46	19	30.425	419	34.81	10	3.197	377	39.12	4
17	28.232	305	60.25	8	53.843	505	53.27	5	30.844	424	34.71	5	3.574	380	39.08	5
27	28.537	303	60.33	14	54.348	503	53.32	29	31.268	423	34.76	21	3.954	380	39.13	13
Okt. 7	28.840	299	60.19	37	54.851	496	53.61	54	31.691	416	34.97	36	4.334	374	39.26	21
17	29.139	290	59.82	58	55.347	479	54.15	77	32.107	404	35.33	52	4.708	364	39.47	29
27	29.429	276	59.24	75	55.826	456	54.92	101	32.511	386	35.85	67	5.072	349	39.76	38
Nov. 6	29.705	258	58.49	88	56.282	424	55.93	123	32.897	360	36.52	84	5.421	326	40.14	48
16	29.963	234	57.61	98	56.706	381	57.16	145	33.257	326	37.36	99	5.747	297	40.62	59
26	30.197	205	56.63	103	57.087	330	58.61	162	33.583	285	38.35	113	6.044	260	41.21	69
Dez. 6	30.402	169	55.60	102	57.417	268	60.23	177	33.868	236	39.48	125	6.304	217	41.90	79
16	[20] 30.571	128	54.58	98	[20] 57.685	200	62.00	186	[21] 34.104	178	40.73	134	[21] 6.521	167	42.69	86
25	30.699	85	53.60	90	57.885	124	63.86	191	34.282	117	42.07	138	6.688	111	43.55	92
35	30.784		52.70		58.009		65.77		34.399		43.45		6.799		44.47	
Mittl. Ort	26.145		44.52		50.729		53.86		28.056		32.27		0.974		34.11	
sec δ, tg δ	1.008		+0.130		1.713		+1.391		1.413		+0.998		1.256		+0.759	
a, *a'*	+3.2		+0.7		+4.9		+0.5		+4.4		+0.5		+4.1		+0.4	
b, *b'*	0.00		—1.00		0.00		—1.00		0.00		—1.00		0.00		—1.00	

Tag	229) η Columbae				232) ν Orionis				236) η Geminorum				234) 22 H. Camelop.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	5h 57m		−42° 48′		6h 3m		+14° 46′		6h 10m		+22° 31′		6h 11m		+69° 20′	
Jan. 0	3.721	16	61.55	307	38.995	72	48.56	41	43.875	84	50.05	5	18.03	11	59.29	264
10	3.705	75	64.62	281	39.067	24	48.15	32	43.959	33	50.10	12	18.14	2	61.93	256
20	3.630	129	67.43	248	39.091	25	47.83	24	43.992	18	50.22	17	18.12	14	64.49	240
30	3.501	179	69.91	208	39.066	68	47.59	16	43.974	65	50.39	19	17.98	25	66.89	213
Feb. 9	3.322	219	71.99	164	38.998	107	47.43	10	43.909	107	50.58	20	17.73	36	69.02	179
19	3.103	252	73.63	117	38.891	138	47.33	5	43.802	140	50.78	18	17.37	44	70.81	136
März 1	2.851	272	74.80	67	38.753	158	47.28	2	43.662	162	50.96	14	16.93	49	72.17	90
11	2.579	281	75.47	18	38.595	169	47.26	2	43.500	175	51.10	9	16.44	52	73.07	41
21	2.298	278	75.65	31	38.426	168	47.28	4	43.325	175	51.19	4	15.92	52	73.48	10
31	2.020	265	75.34	79	38.258	156	47.32	7	43.150	164	51.23	2	15.40	49	73.38	59
Apr. 10	1.755	240	74.55	124	38.102	135	47.39	10	42.986	144	51.21	7	14.91	45	72.79	105
20	1.515	208	73.31	168	37.967	106	47.49	14	42.842	113	51.14	9	14.46	38	71.74	146
30	1.307	168	71.63	206	37.861	70	47.63	20	42.729	78	51.05	11	14.08	29	70.28	181
Mai 10	1.139	121	69.57	240	37.791	31	47.83	26	42.651	37	50.94	11	13.79	19	68.47	208
20	1.018	72	67.17	269	37.760	11	48.09	32	42.614	7	50.83	8	13.60	9	66.39	229
30	0.946	20	64.48	292	37.771	54	48.41	40	42.621	51	50.75	5	13.51	3	64.10	241
Juni 9	0.926	33	61.56	306	37.825	96	48.81	47	42.672	95	50.70	0	13.54	14	61.69	247
19	0.959	85	58.50	314	37.921	135	49.28	53	42.767	136	50.70	4	13.68	25	59.22	245
29	1.044	134	55.36	313	38.056	172	49.81	57	42.903	174	50.74	9	13.93	34	56.77	237
Juli 9	1.178	180	52.23	304	38.228	204	50.38	59	43.077	209	50.83	13	14.27	44	54.40	223
19	1.358	222	49.19	284	38.432	233	50.97	59	43.286	239	50.96	16	14.71	53	52.17	205
29	1.580	260	46.35	256	38.665	256	51.56	56	43.525	264	51.12	16	15.24	60	50.12	181
Aug. 8	1.840	292	43.79	220	38.921	275	52.12	51	43.789	285	51.28	15	15.84	67	48.31	155
18	2.132	318	41.59	176	39.196	291	52.63	41	44.074	302	51.43	12	16.51	72	46.76	125
28	2.450	338	39.83	124	39.487	303	53.04	30	44.376	314	51.55	8	17.23	75	45.51	93
Sept. 7	2.788	350	38.59	69	39.790	310	53.34	16	44.690	324	51.63	1	17.98	78	44.58	60
17	3.138	357	37.90	9	40.100	314	53.50	1	45.014	330	51.64	7	18.76	80	43.98	24
27	3.495	355	37.81	52	40.414	315	53.51	14	45.344	331	51.57	13	19.56	81	43.74	13
Okt. 7	3.850	346	38.33	112	40.729	313	53.37	29	45.675	330	51.44	20	20.37	79	43.87	49
17	4.196	330	39.45	169	41.042	305	53.08	42	46.005	323	51.24	26	21.16	77	44.36	86
27	4.526	305	41.14	219	41.347	293	52.66	53	46.328	312	50.98	30	21.93	74	45.22	122
Nov. 6	4.831	274	43.33	263	41.640	277	52.13	61	46.640	296	50.68	31	22.67	69	46.44	157
16	5.105	234	45.96	297	41.917	253	51.52	65	46.936	272	50.37	29	23.36	61	48.01	189
26	5.339	188	48.93	319	42.170	225	50.87	66	47.208	243	50.08	24	23.97	53	49.90	216
Dez. 6	5.527	136	52.12	332	42.395	189	50.21	62	47.451	207	49.84	19	24.50	43	52.06	238
16	5.663	80	55.44	332	42.584	148	49.59	57	47.658	164	49.65	11	24.93	32	54.44	254
25	5.743	21	58.76	321	42.732	102	49.02	50	47.822	116	49.54	3	25.25	19	56.98	261
35	5.764		61.97		42.834		48.52		47.938		49.51		25.44		59.59	
Mittl. Ort	2.078		66.30		37.957		41.06		42.779		42.31		14.81		49.60	
sec δ, tg δ	1.363		−0.927		1.034		+0.264		1.083		+0.415		2.835		+2.653	
a, a′	+1.8		+0.3		+3.4		−0.3		+3.6		−0.9		+6.6		−1.0	
b, b′	0.00		−1.00		0.00		−1.00		0.00		−1.00		−0.01		−1.00	

Tag	240) ζ Canis maj. AR.	Diff.	Dekl.	Diff.	241) μ Geminorum AR.	Diff.	Dekl.	Diff.
1931	6h 17m		−30° 1′		6h 18m		+22° 33′	
Jan. 0	41.116	37	47.71	278	48.324	93	9.81	2
10	41.153	15	50.49	258	48.417	42	9.83	11
20	41.138	66	53.07	230	48.459	10	9.94	17
30	41.072	113	55.37	197	48.449	59	10.11	20
Feb. 9	40.959	153	57.34	159	48.390	101	10.31	22
19	40.806	185	58.93	119	48.289	135	10.53	20
März 1	40.621	207	60.12	78	48.154	160	10.73	17
11	40.414	219	60.90	35	47.994	174	10.90	12
21	40.195	221	61.25	7	47.820	175	11.02	7
31	39.974	212	61.18	48	47.645	165	11.09	1
Apr. 10	39.762	194	60.70	89	47.480	146	11.10	4
20	39.568	167	59.81	127	47.334	118	11.06	8
30	39.401	133	58.54	162	47.216	83	10.98	10
Mai 10	39.268	95	56.92	194	47.133	43	10.88	10
20	39.173	53	54.98	221	47.090	0	10.78	9
30	39.120	10	52.77	244	47.090	44	10.69	6
Juni 9	39.110	35	50.33	259	47.134	87	10.63	3
19	39.145	78	47.74	270	47.221	129	10.60	2
29	39.223	120	45.04	272	47.350	167	10.62	5
Juli 9	39.343	159	42.32	266	47.517	201	10.67	9
19	39.502	194	39.66	254	47.718	232	10.76	10
29	39.696	227	37.12	231	47.950	258	10.86	11
Aug. 8	39.923	253	34.81	202	48.208	280	10.97	9
18	40.176	276	32.79	165	48.488	298	11.06	7
28	40.452	295	31.14	122	48.786	312	11.13	1
Sept. 7	40.747	308	29.92	72	49.098	322	11.14	5
17	41.055	317	29.20	21	49.420	329	11.09	13
27	41.372	320	28.99	34	49.749	332	10.96	20
Okt. 7	41.692	317	29.33	88	50.081	331	10.76	27
17	42.009	309	30.21	140	50.412	327	10.49	33
27	42.318	294	31.61	186	50.739	317	10.16	35
Nov. 6	42.612	272	33.47	228	51.056	302	9.81	36
16	42.884	244	35.75	259	51.358	279	9.45	35
26	43.128	208	38.34	282	51.637	250	9.10	29
Dez. 6	43.336	167	41.16	295	51.887	215	8.81	23
16	43.503	120	44.11	297	52.102	172	8.58	15
26	43.623	70	47.08	290	52.274	126	8.43	5
35	43.693		49.98		52.400		8.38	
Mittl. Ort	39.814		53.96		47.216		2.28	
sec δ, tg δ	1.155		−0.578		1.083		+0.415	
a, a′	+2.3		−1.5		+3.6		−1.6	
b, b′	0.00		−1.00		0.00		−1.00	

Tag	242) ψ¹ Aurigae AR.	Diff.	Dekl.	Diff.	243) β Canis maj. AR.	Diff.	Dekl.	Diff.
1931	6h 19m		+49° 19′		6h 19m		−17° 54′	
Jan. 0	36.829	114	39.00	164	40.775	56	67.18	228
10	36.943	41	40.64	164	40.831	8	69.46	210
20	36.984	31	42.28	158	40.839	39	71.56	186
30	36.953	97	43.86	144	40.800	84	73.42	158
Feb. 9	36.856	156	45.30	124	40.716	123	75.00	127
19	36.700	204	46.54	98	40.593	154	76.27	95
März 1	36.496	237	47.52	69	40.439	175	77.22	61
11	36.259	257	48.21	38	40.264	187	77.83	27
21	36.002	259	48.59	4	40.077	189	78.10	7
31	35.743	247	48.63	28	39.888	181	78.03	39
Apr. 10	35.496	221	48.35	59	39.707	164	77.64	72
20	35.275	182	47.76	87	39.543	138	76.92	102
30	35.093	134	46.89	110	39.405	106	75.90	130
Mai 10	34.959	80	45.79	128	39.299	70	74.60	156
20	34.879	19	44.51	141	39.229	31	73.04	179
30	34.860	42	43.10	150	39.198	9	71.25	198
Juni 9	34.902	103	41.60	153	39.207	51	69.27	211
19	35.005	161	40.07	152	39.258	90	67.16	221
29	35.166	216	38.55	147	39.348	128	64.95	223
Juli 9	35.382	266	37.08	138	39.476	162	62.72	220
19	35.648	311	35.70	127	39.638	194	60.52	208
29	35.959	349	34.43	114	39.832	222	58.44	191
Aug. 8	36.308	381	33.29	99	40.054	245	56.53	167
18	36.689	409	32.30	83	40.299	264	54.86	136
28	37.098	429	31.47	65	40.563	281	53.50	100
Sept. 7	37.527	444	30.82	47	40.844	292	52.50	59
17	37.971	455	30.35	29	41.136	300	51.91	14
27	38.426	459	30.06	10	41.436	303	51.77	32
Okt. 7	38.885	457	29.96	11	41.739	302	52.09	77
17	39.342	450	30.07	32	42.041	296	52.86	120
27	39.792	434	30.39	54	42.337	284	54.06	160
Nov. 6	40.226	411	30.93	75	42.621	266	55.66	193
16	40.637	378	31.68	96	42.887	242	57.59	218
26	41.015	336	32.64	116	43.129	212	59.77	237
Dez. 6	41.351	285	33.80	135	43.341	175	62.14	246
16	41.636	225	35.15	149	43.516	133	64.60	247
26	41.861	158	36.64	158	43.649	86	67.07	239
35	42.019		38.22		43.735		69.46	
Mittl. Ort	35.176		30.61		39.639		73.68	
sec δ, tg δ	1.534		+1.164		1.051		−0.323	
a, a′	+4.6		−1.7		+2.6		−1.7	
b, b′	−0.01		−1.00		0.00		−1.00	

Tag	244) 8 Monocerotis				245) α Argus				246) 10 Monocerotis				247) 8 Lyncis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$6^h\ 20^m$		$+4°\ 37'$		$6^h\ 22^m$		$-52°38'$		$6^h\ 24^m$		$-4°\ 42'$		$6^h\ 31^m$		$+61°\ 32'$	
Jan. 0	7.763	80	52.21	107	27.166	16	80.27	342	34.191	76	58.62	162	25.76	15	47.04	226
10	7.843	33	51.14	94	27.150	87	83.69	319	34.267	28	60.24	147	25.91	5	49.30	225
20	7.876	15	50.20	79	27.063	155	86.88	289	34.295	18	61.71	128	25.96	5	51.55	216
30	7.861	60	49.41	64	26.908	215	89.77	249	34.277	63	62.99	107	25.91	14	53.71	199
Feb. 9	7.801	98	48.77	48	26.693	268	92.26	206	34.214	102	64.06	84	25.77	22	55.70	173
19	7.703	129	48.29	34	26.425	310	94.32	158	34.112	133	64.90	62	25.55	28	57.43	139
März 1	7.574	152	47.95	19	26.115	338	95.90	107	33.979	156	65.52	39	25.27	33	58.82	101
11	7.422	165	47.76	5	25.777	355	96.97	55	33.823	168	65.91	16	24.94	37	59.83	59
21	7.257	166	47.71	8	25.422	357	97.52	2	33.655	171	66.07	6	24.57	37	60.42	15
31	7.091	158	47.79	20	25.065	348	97.54	49	33.484	163	66.01	27	24.20	36	60.57	28
Apr. 10	6.933	140	47.99	33	24.717	327	97.05	100	33.321	147	65.74	49	23.84	33	60.29	71
20	6.793	115	48.32	45	24.390	294	96.05	147	33.174	122	65.25	69	23.51	29	59.58	109
30	6.678	82	48.77	57	24.096	253	94.58	190	33.052	92	64.56	88	23.22	22	58.49	142
Mai 10	6.596	47	49.34	70	23.843	204	92.68	231	32.960	56	63.68	106	23.00	15	57.07	169
20	6.549	7	50.04	81	23.639	149	90.37	264	32.904	18	62.62	123	22.85	8	55.38	191
30	6.542	33	50.85	91	23.490	92	87.73	292	32.886	21	61.39	136	22.77	1	53.47	206
Juni 9	6.575	73	51.76	99	23.398	31	84.81	312	32.907	61	60.03	148	22.78	8	51.41	214
19	6.648	111	52.75	106	23.367	30	81.69	324	32.968	99	58.55	155	22.86	17	49.27	217
29	6.759	146	53.81	108	23.397	90	78.45	328	33.067	134	57.00	157	23.03	24	47.10	213
Juli 9	6.905	179	54.89	108	23.487	149	75.17	322	33.201	167	55.43	156	23.27	31	44.97	205
19	7.084	207	55.97	105	23.636	204	71.95	307	33.368	196	53.87	149	23.58	38	42.92	193
29	7.291	232	57.02	96	23.840	255	68.88	282	33.564	221	52.38	137	23.96	44	40.99	175
Aug. 8	7.523	253	57.98	83	24.095	299	66.06	247	33.785	244	51.01	119	24.40	48	39.24	156
18	7.776	271	58.81	67	24.394	339	63.59	205	34.029	262	49.82	97	24.88	52	37.68	133
28	8.047	283	59.48	47	24.733	370	61.54	154	34.291	276	48.85	70	25.40	56	36.35	108
Sept. 7	8.330	294	59.95	24	25.103	394	60.00	96	34.567	288	48.15	38	25.96	59	35.27	82
17	8.624	300	60.19	1	25.497	408	59.04	34	34.855	295	47.77	5	26.55	60	34.45	53
27	8.924	304	60.18	27	25.905	414	58.70	29	35.150	299	47.72	29	27.15	60	33.92	23
Okt. 7	9.228	304	59.91	52	26.319	410	58.99	94	35.449	300	48.01	63	27.75	61	33.69	8
17	9.532	298	59.39	75	26.729	394	59.93	155	35.749	295	48.64	96	28.36	61	33.77	41
27	9.830	290	58.64	95	27.123	369	61.48	213	36.044	286	49.60	125	28.97	58	34.18	72
Nov. 6	10.120	275	57.69	112	27.492	332	63.61	263	36.330	271	50.85	148	29.55	55	34.90	105
16	10.395	253	56.57	123	27.824	287	66.24	303	36.601	250	52.33	166	30.10	50	35.95	135
26	10.648	227	55.34	129	28.111	232	69.27	333	36.851	222	53.99	178	30.60	45	37.30	163
Dez. 6	10.875	193	54.05	129	28.343	170	72.60	352	37.073	189	55.77	182	31.05	38	38.93	188
16	11.068	154	52.76	125	28.513	101	76.12	358	37.262	149	57.59	181	31.43	30	40.81	206
26	11.222	110	51.51	117	28.614	29	79.70	353	37.411	105	59.40	172	31.73	21	42.87	219
35	27 11.332		50.34		28 28.643		83.23		28 37.516		61.12		30 31.94		45.06	
Mittl. Ort	6.730		45.23		25.134		86.77		33.142		65.44		23.35		39.09	
sec δ, tg δ	1.003		+0.081		1.649		−1.311		1.003		−0.083		2.099		+1.845	
a, *a'*	+3.2		−1.8		+1.3		−2.0		+3.0		−2.1		+5.5		−2.7	
b, *b'*	0.00		−1.00		+0.01		−1.00		0.00		−0.99		−0.02		−0.99	

Scheinbare Sternörter 1931

Tag	249) ξ² Canis maj. AR.		Dekl.		251) γ Geminorum AR.		Dekl.		250) 51 Aurigae AR.		Dekl.		248) 23 H. Camelop. AR.		Dekl.	
1931	6h 32m		−22° 54′		6h 33m		+16° 27′		6h 33m		+39° 27′		6h 34m		+79° 38′	
Jan. 0	11.024	63	25.66	256	44.678	104	41.81	39	54.156	124	19.67	103	36.43	25	44.80	301
10	11.087	12	28.22	238	44.782	53	41.42	28	54.280	62	20.70	109	36.68	1	47.81	297
20	11.099	38	30.60	213	44.835	2	41.14	17	54.342	1	21.79	110	36.67	25	50.78	282
30	11.061	83	32.73	184	44.837	45	40.97	8	54.341	60	22.89	105	36.42	48	53.60	258
Feb. 9	10.978	124	34.57	151	44.792	88	40.89	1	54.281	112	23.94	95	35.94	69	56.18	222
19	10.854	157	36.08	116	44.704	123	40.88	4	54.169	156	24.89	80	35.25	85	58.40	179
März 1	10.697	182	37.24	78	44.581	149	40.92	8	54.013	188	25.69	61	34.40	98	60.19	128
11	10.515	196	38.02	41	44.432	164	41.00	10	53.825	207	26.30	40	33.42	105	61.47	74
21	10.319	199	38.43	4	44.268	169	41.10	10	53.618	213	26.70	16	32.37	108	62.21	16
31	10.120	193	38.47	33	44.099	162	41.20	12	53.405	205	26.86	7	31.29	106	62.37	40
Apr. 10	9.927	178	38.14	69	43.937	146	41.32	11	53.200	186	26.79	29	30.23	98	61.97	95
20	9.749	154	37.45	103	43.791	121	41.43	13	53.014	155	26.50	50	29.25	88	61.02	144
30	9.595	123	36.42	135	43.670	90	41.56	15	52.859	116	26.00	67	28.37	73	59.58	187
Mai 10	9.472	88	35.07	163	43.580	52	41.71	18	52.743	71	25.33	81	27.64	56	57.71	225
20	9.384	50	33.44	189	43.528	13	41.89	21	52.672	21	24.52	91	27.08	36	55.46	253
30	9.334	9	31.55	211	43.515	28	42.10	26	52.651	29	23.61	98	26.72	16	52.93	273
Juni 9	9.325	32	29.44	227	43.543	69	42.36	29	52.680	80	22.63	101	26.56	5	50.20	286
19	9.357	73	27.17	237	43.612	109	42.65	34	52.760	129	21.62	101	26.61	27	47.34	291
29	9.430	111	24.80	241	43.721	145	42.99	36	52.889	176	20.61	99	26.88	47	44.43	288
Juli 9	9.541	148	22.39	238	43.866	180	43.35	36	53.065	218	19.62	95	27.35	66	41.55	277
19	9.689	182	20.01	227	44.046	209	43.71	36	53.283	255	18.67	89	28.01	84	38.78	261
29	9.871	211	17.74	210	44.255	236	44.07	33	53.538	290	17.78	81	28.85	101	36.17	239
Aug. 8	10.082	237	15.64	184	44.491	259	44.40	27	53.828	317	16.97	74	29.86	115	33.78	211
18	10.319	260	13.80	152	44.750	277	44.67	18	54.145	341	16.23	66	31.01	126	31.67	180
28	10.579	279	12.28	114	45.027	293	44.85	8	54.486	361	15.57	58	32.27	137	29.87	145
Sept. 7	10.858	293	11.14	69	45.320	305	44.93	4	54.847	376	14.99	49	33.64	145	28.42	107
17	11.151	303	10.45	22	45.625	314	44.89	18	55.223	386	14.50	40	35.09	149	27.35	66
27	11.454	309	10.23	27	45.939	319	44.71	31	55.609	393	14.10	31	36.58	152	26.69	23
Okt. 7	11.763	309	10.50	77	46.258	321	44.40	45	56.002	396	13.79	20	38.10	152	26.46	20
17	12.072	305	11.27	124	46.579	319	43.95	56	56.398	392	13.59	7	39.62	149	26.66	65
27	12.377	294	12.51	168	46.898	312	43.39	66	56.790	382	13.52	6	41.11	142	27.31	110
Nov. 6	12.671	277	14.19	205	47.210	299	42.73	71	57.172	366	13.58	20	42.53	133	28.41	152
16	12.948	253	16.24	235	47.509	280	42.02	73	57.538	342	13.78	37	43.86	120	29.93	192
26	13.201	222	18.59	257	47.789	253	41.29	72	57.880	308	14.15	53	45.06	105	31.85	228
Dez. 6	13.423	185	21.16	269	48.042	219	40.57	66	58.188	267	14.68	69	46.11	85	34.13	258
16	13.608	142	23.85	273	48.261	180	39.91	58	58.455	218	15.37	83	46.96	64	36.71	281
26	13.750	95	26.58	266	48.441	135	39.33	49	58.673	162	16.20	95	47.60	39	39.52	294
35	[30] 13.845		29.24		[30] 48.576		38.84		[31] 58.835		17.15		[31] 47.99		42.46	
Mittl. Ort	9.841		32.59		43.599		34.78		52.764		12.34		29.50		36.67	
sec δ, tg δ	1.086		−0.423		1.043		+0.295		1.295		+0.823		5.563		+5.472	
a, a'	+2.5		−2.8		+3.5		−2.9		+4.2		−3.0		+10.3		−3.0	
b, b'	0.00		−0.99		0.00		−0.99		−0.01		−0.99		−0.05		−0.99	

Tag	252) ν Argus AR.		252) ν Argus Dekl.		253) *S* Monocerotis AR.		253) *S* Monocerotis Dekl.		254) ε Geminorum AR.		254) ε Geminorum Dekl.		256) ξ Geminorum AR.		256) ξ Geminorum Dekl.	
1931	$6^h 35^m$		$-43° 7'$		$6^h 37^m$		$+9° 57'$		$6^h 39^m$		$+25° 12'$		$6^h 41^m$		$+12° 58'$	
Jan. 0*)	° 40.565 s	32	57.97″	329	° 11.787 s	101	46.53″	81	42.473 s	117	10.71″	15	1 26.122 s	108	23.85″	64
10	40.597	29	61.26	309	11.888	52	45.72	67	42.590	63	10.86	24	26.230	58	23.21	51
20	40.568	89	64.35	281	11.940	3	45.05	54	42.653	10	11.10	32	26.288	8	22.70	38
30	40.479	144	67.16	247	11.943	43	44.51	41	42.663	42	11.42	36	26.296	40	22.32	27
Feb. 9	40.335	191	69.63	206	11.900	86	44.10	29	42.621	88	11.78	37	26.256	82	22.05	16
19	40.144	230	71.69	161	11.814	120	43.81	17	42.533	126	12.15	36	26.174	118	21.89	7
März 1	39.914	259	73.30	114	11.694	145	43.64	7	42.407	154	12.51	31	26.056	145	21.82	0
11	39.655	275	74.44	66	11.549	161	43.57	1	42.253	173	12.82	25	25.911	161	21.82	6
21	39.380	280	75.10	16	11.388	165	43.58	9	42.080	178	13.07	16	25.750	166	21.88	10
31	39.100	275	75.26	32	11.223	160	43.67	16	41.902	172	13.23	7	25.584	162	21.98	14
Apr. 10	38.825	258	74.94	79	11.063	145	43.83	23	41.730	156	13.30	1	25.422	146	22.12	18
20	38.567	232	74.15	125	10.918	121	44.06	30	41.574	131	13.29	8	25.276	124	22.30	23
30	38.335	198	72.90	167	10.797	91	44.36	38	41.443	98	13.21	15	25.152	93	22.53	27
Mai 10	38.137	157	71.23	204	10.706	56	44.74	45	41.345	59	13.06	18	25.059	58	22.80	32
20	37.980	112	69.19	239	10.650	17	45.19	52	41.286	18	12.88	21	25.001	20	23.12	37
30	37.868	64	66.80	266	10.633	22	45.71	59	41.268	25	12.67	22	24.981	20	23.49	42
Juni 9	37.804	14	64.14	287	10.655	62	46.30	65	41.293	68	12.45	21	25.001	60	23.91	47
19	37.790	36	61.27	301	10.717	100	46.95	70	41.361	110	12.24	20	25.061	98	24.38	51
29	37.826	86	58.26	306	10.817	136	47.65	73	41.471	150	12.04	18	25.159	135	24.89	53
Juli 9	37.912	134	55.20	303	10.953	169	48.38	72	41.621	185	11.86	16	25.294	168	25.42	53
19	38.046	179	52.17	291	11.122	198	49.10	70	41.806	217	11.70	15	25.462	198	25.95	52
29	38.225	220	49.26	270	11.320	225	49.80	64	42.023	246	11.55	15	25.660	224	26.47	46
Aug. 8	38.445	257	46.56	238	11.545	247	50.44	54	42.269	270	11.40	16	25.884	248	26.93	38
18	38.702	290	44.18	199	11.792	266	50.98	41	42.539	291	11.24	18	26.132	267	27.31	27
28	38.992	316	42.19	153	12.058	282	51.39	26	42.830	308	11.06	22	26.399	284	27.58	14
Sept. 7	39.308	338	40.66	99	12.340	294	51.65	7	43.138	322	10.84	26	26.683	296	27.72	2
17	39.646	353	39.67	42	12.634	303	51.72	12	43.460	332	10.58	32	26.979	306	27.70	18
27	39.999	360	39.25	19	12.937	309	51.60	33	43.792	338	10.26	36	27.285	313	27.52	36
Okt. 7	40.359	360	39.44	81	13.246	312	51.27	53	44.130	342	9.90	40	27.598	316	27.16	53
17	40.719	353	40.25	141	13.558	310	50.74	71	44.472	340	9.50	43	27.914	316	26.63	68
27	41.072	336	41.66	196	13.868	304	50.03	86	44.812	333	9.07	43	28.230	309	25.95	81
Nov. 6	41.408	311	43.62	244	14.172	291	49.17	98	45.145	321	8.64	41	28.539	297	25.14	89
16	41.719	277	46.06	284	14.463	272	48.19	105	45.466	301	8.23	35	28.836	279	24.25	94
26	41.996	236	48.90	315	14.735	247	47.14	108	45.767	274	7.88	28	29.115	254	23.31	94
Dez. 6	42.232	186	52.05	334	14.982	214	46.06	106	46.041	240	7.60	18	29.369	222	22.37	91
16	42.418	130	55.39	342	15.196	176	45.00	99	46.281	197	7.42	7	29.591	183	21.46	84
26	42.548	71	58.81	338	15.372	131	44.01	90	46.478	150	7.35	5	29.774	138	20.62	73
35	31 42.619		62.19		31 15.503		43.11		32 46.628		7.40		32 29.912		19.89	
Mittl. Ort	38.971		65.30		10.736		39.59		41.312		3.80		25.057		16.98	
sec δ, tg δ	1.370		−0.937		1.015		+0.176		1.105		+0.471		1.026		+0.230	
a, *a′*	+1.8		−3.1		+3.3		−3.2		+3.7		−3.5		+3.4		−3.6	
b, *b′*	+0.01		−0.99		0.00		−0.99		−0.01		−0.99		0.00		−0.98	

*) Bei Stern 254) und 256) lies Jan. 1

Tag	257) α Canis maj. [1]				258) 18 Monocerotis				262) α Pictoris				261) ϑ Geminorum			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$6^h\ 42^m$		$-16°\ 36'$		$6^h\ 44^m$		$+2°\ 29'$		$6^h\ 47^m$		$-61°\ 51'$		$6^h\ 48^m$		$+34°\ 2'$	
Jan. 1	(1) $7^s.504$	76	$68''.55$	233	(2) $16^s.883$	102	$27''.05$	128	(3) $31^s.69$	1	$52''.63$	363	(3) $15^s.923$	135	$52''.46$	67
10	7.580	26	70.88	216	16.985	53	25.77	113	31.68	10	56.26	347	16.058	77	53.13	76
20	7.606	22	73.04	193	17.038	5	24.64	97	31.58	20	59.73	320	16.135	18	53.89	82
30	7.584	68	74.97	166	17.043	42	23.67	79	31.38	27	62.93	286	16.153	39	54.71	82
Feb. 9	7.516	109	76.63	137	17.001	83	22.88	61	31.11	34	65.79	244	16.114	90	55.53	79
19	7.407	143	78.00	104	16.918	118	22.27	44	30.77	40	68.23	198	16.024	133	56.32	70
März 1	7.264	167	79.04	72	16.800	143	21.83	27	30.37	44	70.21	149	15.891	166	57.02	58
11	7.097	182	79.76	39	16.657	160	21.56	10	29.93	47	71.70	96	15.725	186	57.60	42
21	6.915	186	80.15	7	16.497	165	21.46	4	29.46	48	72.66	42	15.539	195	58.02	25
31	6.729	181	80.22	26	16.332	161	21.50	19	28.98	48	73.08	11	15.344	191	58.27	7
Apr. 10	6.548	166	79.96	56	16.171	147	21.69	34	28.50	46	72.97	64	15.153	175	58.34	10
20	6.382	144	79.40	86	16.024	125	22.03	47	28.04	42	72.33	115	14.978	149	58.24	27
30	6.238	114	78.54	113	15.899	97	22.50	60	27.62	38	71.18	163	14.829	114	57.97	41
Mai 10	6.124	81	77.41	138	15.802	63	23.10	73	27.24	33	69.55	207	14.715	75	57.56	54
20	6.043	43	76.03	161	15.739	27	23.83	85	26.91	27	67.48	245	14.640	30	57.02	62
30	6.000	4	74.42	180	15.712	12	24.68	95	26.64	20	65.03	278	14.610	16	56.40	68
Juni 9	5.996	36	72.62	194	15.724	50	25.63	104	26.44	13	62.25	304	14.626	63	55.72	72
19	6.032	74	70.68	203	15.774	87	26.67	109	26.31	5	59.21	322	14.689	108	55.00	73
29	6.106	111	68.65	207	15.861	123	27.76	113	26.26	3	55.99	332	14.797	151	54.27	73
Juli 9	6.217	147	66.58	204	15.984	155	28.89	111	26.29	10	52.67	331	14.948	190	53.54	71
19	6.364	178	64.54	195	16.139	185	30.00	107	26.39	18	49.36	321	15.138	227	52.83	69
29	6.542	207	62.59	179	16.324	211	31.07	98	26.57	25	46.15	301	15.365	259	52.14	66
Aug. 8	6.749	231	60.80	157	16.535	235	32.05	85	26.82	31	43.14	272	15.624	286	51.48	62
18	6.980	253	59.23	128	16.770	254	32.90	67	27.13	37	40.42	232	15.910	310	50.86	59
28	7.233	270	57.95	93	17.024	271	33.57	45	27.50	43	38.10	183	16.220	330	50.27	56
Sept. 7	7.503	285	57.02	54	17.295	284	34.02	21	27.93	46	36.27	128	16.550	346	49.71	53
17	7.788	295	56.48	12	17.579	295	34.23	6	28.39	49	34.99	67	16.896	358	49.18	50
27	8.083	302	56.36	34	17.874	302	34.17	33	28.88	51	34.32	2	17.254	368	48.68	46
Okt. 7	8.385	303	56.70	78	18.176	305	33.84	61	29.39	51	34.30	65	17.622	372	48.22	41
17	8.688	301	57.48	120	18.481	305	33.23	87	29.90	50	34.95	130	17.994	371	47.81	34
27	8.989	292	58.68	160	18.786	299	32.36	109	30.40	47	36.25	191	18.365	366	47.47	25
Nov. 6	9.281	277	60.28	193	19.085	287	31.27	128	30.87	43	38.16	247	18.731	353	47.22	14
16	9.558	255	62.21	220	19.372	269	29.99	141	31.30	37	40.63	294	19.084	333	47.08	1
26	9.813	228	64.41	239	19.641	245	28.58	148	31.67	30	43.57	330	19.417	304	47.07	13
Dez. 6	10.041	192	66.80	249	19.886	213	27.10	150	31.97	22	46.87	356	19.721	267	47.20	28
16	10.233	152	69.29	250	20.099	174	25.60	147	32.19	14	50.43	370	19.988	222	47.48	43
26	(33) 10.385	106	71.79	244	(33) 20.273	131	24.13	138	(34) 32.33	5	54.13	370	(34) 20.210	170	47.91	57
35	10.491		74.23		20.404		22.75		32.38		57.83		20.380		48.48	
Mittl. Ort	6.395		75.50		15.845		20.12		29.09		61.27		14.621		45.89	
sec δ, tg δ	1.044		−0.299		1.001		+0.043		2.121		−1.870		1.207		+0.676	
a, a'	+2.7		−3.7		+3.1		−3.8		+0.6		−4.1		+4.0		−4.2	
b, b'	0.00		−0.98		0.00		−0.98		+0.03		−0.98		−0.01		−0.98	

[1] Ort des Hauptsterns; die jährliche Parallaxe ($0''.38$) ist bereits berücksichtigt.

Tag	266) ϑ Canis maj. AR.	Δ	266) Dekl.	Δ	265) 15 Lyncis AR.	Δ	265) Dekl.	Δ	268) ε Canis maj. AR.	Δ	268) Dekl.	Δ	269) ζ Geminorum AR.	Δ	269) Dekl.	Δ
1931	$6^h\ 50^m$		−11° 56′		$6^h\ 51^m$		+58° 30′		$6^h\ 55^m$		−28° 52′		$7^h\ 0^m$		+20° 40′	
Jan. 1	60.121	95	56.30	211	20.730	180	62.05	207	56.026	81	29.74	291	^{6}2.218	134	29.28	20
10	^{4}60.216	46	58.41	195	^{4}20.910	90	64.12	212	^{5}56.107	28	32.65	274	2.352	82	29.08	8
20	60.262	4	60.36	174	21.000	1	66.24	209	56.135	26	35.39	251	2.434	29	29.00	4
30	60.258	51	62.10	149	20.999	88	68.33	197	56.109	76	37.90	221	2.463	23	29.04	14
Feb. 9	60.207	92	63.59	123	20.911	166	70.30	177	56.033	120	40.11	187	2.440	69	29.18	20
19	60.115	126	64.82	96	20.745	233	72.07	150	55.913	159	41.98	149	2.371	109	29.38	25
März 1	59.989	154	65.78	66	20.512	284	73.57	117	55.754	186	43.47	110	2.262	140	29.63	26
11	59.835	170	66.44	37	20.228	317	74.74	78	55.568	205	44.57	70	2.122	160	29.89	24
21	59.665	176	66.81	9	19.911	332	75.52	38	55.363	213	45.27	28	1.962	170	30.13	22
31	59.489	174	66.90	19	19.579	328	75.90	4	55.150	211	45.55	13	1.792	167	30.35	17
Apr. 10	59.315	161	66.71	47	19.251	305	75.86	45	54.939	199	45.42	53	1.625	155	30.52	13
20	59.154	141	66.24	72	18.946	269	75.41	82	54.740	178	44.89	91	1.470	134	30.65	9
30	59.013	113	65.52	97	18.677	219	74.59	116	54.562	151	43.98	128	1.336	106	30.74	5
Mai 10	58.900	81	64.55	121	18.458	158	73.43	146	54.411	119	42.70	161	1.230	71	30.79	3
20	58.819	46	63.34	141	18.300	91	71.97	169	54.292	81	41.09	191	1.159	33	30.82	2
30	58.773	8	61.93	158	18.209	20	70.28	186	54.211	41	39.18	216	1.126	7	30.84	1
Juni 9	58.765	30	60.35	172	18.189	53	68.42	199	54.170	0	37.02	236	1.133	47	30.85	1
19	58.795	67	58.63	181	18.242	126	66.43	206	54.170	42	34.66	249	1.180	87	30.86	3
29	58.862	103	56.82	185	18.368	195	64.37	206	54.212	81	32.17	257	1.267	124	30.89	2
Juli 9	58.965	138	54.97	184	18.563	260	62.31	202	54.293	121	29.60	256	1.391	159	30.91	2
19	59.103	168	53.13	178	18.823	319	60.29	194	54.414	157	27.04	248	1.550	191	30.93	0
29	59.271	197	51.35	165	19.142	373	58.35	182	54.571	190	24.56	231	1.741	220	30.93	3
Aug. 8	59.468	222	49.70	145	19.515	421	56.53	167	54.761	221	22.25	208	1.961	246	30.90	7
18	59.690	244	48.25	119	19.936	462	54.86	149	54.982	249	20.17	174	2.207	267	30.83	14
28	59.934	263	47.06	88	20.398	495	53.37	128	55.231	272	18.43	136	2.474	286	30.69	21
Sept. 7	60.197	278	46.18	53	20.893	523	52.09	104	55.503	291	17.07	90	2.760	303	30.48	31
17	60.475	290	45.65	14	21.416	545	51.05	80	55.794	306	16.17	39	3.063	315	30.17	41
27	60.765	299	45.51	27	21.961	558	50.25	53	56.100	317	15.78	13	3.378	325	29.76	50
Okt. 7	61.064	303	45.78	68	22.519	564	49.72	24	56.417	322	15.91	67	3.703	332	29.26	59
17	61.367	303	46.46	107	23.083	562	49.48	6	56.739	321	16.58	119	4.035	334	28.67	67
27	61.670	297	47.53	142	23.645	550	49.54	37	57.060	313	17.77	169	4.369	330	28.00	71
Nov. 6	61.967	285	48.95	174	24.195	528	49.91	69	57.373	298	19.46	212	4.699	322	27.29	72
16	62.252	266	50.69	198	24.723	493	50.60	100	57.671	276	21.58	248	5.021	305	26.57	70
26	62.518	240	52.67	216	25.216	446	51.60	130	57.947	246	24.06	275	5.326	281	25.87	65
Dez. 6	62.758	208	54.83	224	25.662	386	52.90	157	58.193	208	26.81	293	5.607	250	25.22	56
16	62.966	169	57.07	227	26.048	315	54.47	179	58.401	163	29.74	301	5.857	211	24.66	44
26	63.135	124	59.34	220	26.363	234	56.26	197	58.564	114	32.75	299	6.068	165	24.22	31
35*)	^{35}63.259		61.54		^{35}26.597		58.23		^{36}58.678		35.74		6.233		23.91	
Mittl. Ort	59.052		63.59		18.479		55.63		54.797		37.77		1.092		22.99	
sec δ, tg δ	1.022		−0.212		1.915		+1.633		1.142		−0.552		1.069		−0.377	
a, *a′*	+2.8		−4.4		+5.2		−4.5		+2.4		−4.8		+3.6		−5.2	
b, *b′*	0.00		−0.98		−0.02		−0.98		+0.01		−0.97		−0.01		−0.97	

*) Bei Stern 268) und 269) lies Dez. 36

Scheinbare Sternörter 1931

Tag	271) γ Canis maj. AR.		271) γ Canis maj. Dekl.		273) δ Canis maj. AR.		273) δ Canis maj. Dekl.	
1931	$7^h\ 0^m$		$-15°\ 31'$		$7^h\ 5^m$		$-26°\ 16'$	
Jan. 1	6 39.323	101	41.14	232	7 36.276	95	49.13	283
10	39.424	51	43.46	217	36.371	42	51.96	268
20	39.475	1	45.63	196	36.413	11	54.64	246
30	39.476	47	47.59	170	36.402	61	57.10	218
Feb. 9	39.429	89	49.29	142	36.341	106	59.28	185
19	39.340	126	50.71	112	36.235	145	61.13	150
März 1	39.214	154	51.83	81	36.090	173	62.63	112
11	39.060	172	52.64	49	35.917	194	63.75	73
21	38.888	180	53.13	18	35.723	203	64.48	34
31	38.708	179	53.31	13	35.520	203	64.82	5
Apr. 10	38.529	168	53.18	44	35.317	192	64.77	44
20	38.361	148	52.74	73	35.125	174	64.33	81
30	38.213	123	52.01	100	34.951	148	63.52	115
Mai 10	38.090	92	51.01	126	34.803	116	62.37	148
20	37.998	58	49.75	148	34.687	82	60.89	177
30	37.940	20	48.27	168	34.605	43	59.12	202
Juni 9	37.920	18	46.59	183	34.562	4	57.10	222
19	37.938	55	44.76	194	34.558	36	54.88	236
29	37.993	91	42.82	199	34.594	75	52.52	244
Juli 9	38.084	126	40.83	199	34.669	113	50.08	244
19	38.210	158	38.84	192	34.782	148	47.64	237
29	38.368	188	36.92	179	34.930	181	45.27	222
Aug. 8	38.556	214	35.13	159	35.111	212	43.05	200
18	38.770	238	33.54	132	35.323	238	41.05	169
28	39.008	259	32.22	100	35.561	263	39.36	132
Sept. 7	39.267	276	31.22	62	35.824	283	38.04	88
17	39.543	289	30.60	21	36.107	299	37.16	41
27	39.832	300	30.39	22	36.406	311	36.75	10
Okt. 7	40.132	306	30.61	67	36.717	318	36.85	63
17	40.438	307	31.28	109	37.035	319	37.48	113
27	40.745	302	32.37	148	37.354	314	38.61	161
Nov. 6	41.047	291	33.85	182	37.668	301	40.22	204
16	41.338	273	35.67	210	37.969	281	42.26	239
26	41.611	248	37.77	231	38.250	253	44.65	267
Dez. 6	41.859	215	40.08	242	38.503	218	47.32	284
16	42.074	176	42.50	246	38.721	175	50.16	293
26	42.250	131	44.96	242	38.896	127	53.09	291
36	42.381		47.38		39.023		56.00	
Mittl. Ort	38.243		48.77		35.101		57.43	
sec δ, tg δ	1.038		−0.278		1.115		−0.494	
a, *a'*	+2.7		−5.2		+2.4		−5.7	
b, *b'*	0.00		−0.97		+0.01		−0.96	

Tag	274) 63 Aurigae AR.		274) 63 Aurigae Dekl.		277) λ Geminorum AR.		277) λ Geminorum Dekl.	
1931	$7^h\ 6^m$		$+39°\ 26'$		$7^h\ 14^m$		$+16°\ 39'$	
Jan. 1	8 56.224	165	11.00	94	9 8.839	144	64.48	51
10	56.389	102	11.94	106	8.983	93	63.97	36
20	56.491	39	13.00	114	9.076	41	63.61	22
30	56.530	23	14.14	114	9.117	10	63.39	8
Feb. 9	56.507	81	15.28	109	9.107	57	63.31	2
19	56.426	130	16.37	99	9.050	98	63.33	10
März 1	56.296	169	17.36	83	8.952	130	63.43	16
11	56.127	194	18.19	65	8.822	151	63.59	19
21	55.933	207	18.84	42	8.671	163	63.78	21
31	55.726	207	19.26	19	8.508	164	63.99	21
Apr. 10	55.519	195	19.45	5	8.344	153	64.20	21
20	55.324	171	19.40	27	8.191	136	64.41	20
30	55.153	139	19.13	48	8.055	110	64.61	19
Mai 10	55.014	98	18.65	66	7.945	78	64.80	20
20	54.916	53	17.99	81	7.867	43	65.00	19
30	54.863	6	17.18	93	7.824	6	65.19	21
Juni 9	54.857	42	16.25	101	7.818	33	65.40	21
19	54.899	91	15.24	107	7.851	71	65.61	22
29	54.990	136	14.17	109	7.922	107	65.83	22
Juli 9	55.126	179	13.08	110	8.029	141	66.05	20
19	55.305	219	11.98	108	8.170	173	66.25	17
29	55.524	255	10.90	106	8.343	202	66.42	12
Aug. 8	55.779	287	9.84	101	8.545	227	66.54	5
18	56.066	314	8.83	97	8.772	251	66.59	5
28	56.380	338	7.86	91	9.023	270	66.54	15
Sept. 7	56.718	359	6.95	84	9.293	288	66.39	29
17	57.077	376	6.11	77	9.581	302	66.10	43
27	57.453	388	5.34	68	9.883	315	65.67	56
Okt. 7	57.841	397	4.66	58	10.198	323	65.11	70
17	58.238	400	4.08	45	10.521	327	64.41	81
27	58.638	397	3.63	30	10.848	327	63.60	90
Nov. 6	59.035	386	3.33	14	11.175	321	62.70	95
16	59.421	367	3.19	5	11.496	306	61.75	96
26	59.788	340	3.24	25	11.802	284	60.79	93
Dez. 6	60.128	303	3.49	45	12.086	255	59.86	86
16	60.431	256	3.94	64	12.341	219	59.00	75
26	60.687	202	4.58	83	12.560	174	58.25	62
36	60.889		5.41		12.734		57.63	
Mittl. Ort	54.783		5.49		7.749		58.45	
sec δ, tg δ	1.295		+0.822		1.044		+0.299	
a, *a'*	+4.1		−5.8		+3.5		−6.4	
b, *b'*	−0.02		−0.96		−0.01		−0.95	

Tag	278) π Argus				279) δ Geminorum				281) δ Volantis				280) 19 Lyncis sq.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$7^h\ 14^m$		−36° 57′		$7^h\ 16^m$		+22° 6′		$7^h\ 16^m$		−67° 49′		$7^h\ 17^m$		+55° 24′	
Jan. 1	43.625	93	72.44	326	1.413	152	45.14	17	55.45	2	40.65	376	16.809	216	52.78	182
10	43.718	35	75.70	312	1.565	99	44.97	3	55.47	9	44.41	367	17.025	133	54.60	194
20	43.753	24	78.82	291	1.664	45	44.94	11	55.38	20	48.08	348	17.158	47	56.54	199
30	43.729	78	81.73	261	1.709	8	45.05	22	55.18	30	51.56	319	17.205	36	58.53	194
Feb. 9	43.651	129	84.34	227	1.701	56	45.27	29	54.88	40	54.75	284	17.169	113	60.47	181
19	43.522	170	86.61	188	1.645	99	45.56	34	54.48	47	57.59	242	17.056	180	62.28	161
März 1	43.352	204	88.49	146	1.546	132	45.90	34	54.01	53	60.01	195	16.876	234	63.89	134
11	43.148	227	89.95	101	1.414	156	46.24	33	53.48	58	61.96	145	16.642	273	65.23	101
21	42.921	238	90.96	56	1.258	167	46.57	29	52.90	60	63.41	92	16.369	293	66.24	64
31	42.683	241	91.52	11	1.091	169	46.86	24	52.30	61	64.33	39	16.076	298	66.88	25
Apr. 10	42.442	231	91.63	34	0.922	159	47.10	17	51.69	60	64.72	15	15.778	286	67.13	13
20	42.211	214	91.29	78	0.763	140	47.27	11	51.09	57	64.57	67	15.492	258	67.00	50
30	41.997	188	90.51	120	0.623	115	47.38	5	50.52	53	63.90	119	15.234	218	66.50	85
Mai 10	41.809	157	89.31	158	0.508	81	47.43	0	49.99	49	62.71	166	15.016	168	65.65	116
20	41.652	119	87.73	193	0.427	45	47.43	3	49.50	41	61.05	209	14.848	111	64.49	143
30	41.533	79	85.80	223	0.382	7	47.40	6	49.09	33	58.96	248	14.737	49	63.06	164
Juni 9	41.454	37	83.57	248	0.375	33	47.34	8	48.76	25	56.48	279	14.688	16	61.42	180
19	41.417	7	81.09	265	0.408	72	47.26	9	48.51	17	53.69	305	14.704	80	59.62	191
29	41.424	50	78.44	277	0.480	110	47.17	11	48.34	7	50.64	320	14.784	143	57.71	197
Juli 9	41.474	93	75.67	279	0.590	145	47.06	13	48.27	3	47.44	328	14.927	204	55.74	200
19	41.567	134	72.88	274	0.735	178	46.93	15	48.30	12	44.16	325	15.131	259	53.74	196
29	41.701	173	70.14	259	0.913	208	46.78	18	48.42	22	40.91	312	15.390	310	51.78	189
Aug. 8	41.874	210	67.55	235	1.121	234	46.60	24	48.64	30	37.79	289	15.700	357	49.89	180
18	42.084	242	65.20	204	1.355	258	46.36	30	48.94	39	34.90	255	16.057	398	48.09	167
28	42.326	273	63.16	164	1.613	279	46.06	37	49.33	46	32.35	213	16.455	433	46.42	151
Sept. 7	42.599	298	61.52	116	1.892	297	45.69	45	49.79	53	30.22	162	16.888	464	44.91	133
17	42.897	318	60.36	63	2.189	313	45.24	55	50.32	57	28.60	103	17.352	490	43.58	113
27	43.215	333	59.73	7	2.502	325	44.69	63	50.89	61	27.57	40	17.842	509	42.45	89
Okt. 7	43.548	343	59.66	52	2.827	334	44.06	71	51.50	62	27.17	27	18.351	521	41.56	64
17	43.891	345	60.18	109	3.161	339	43.35	77	52.12	62	27.44	94	18.872	526	40.92	36
27	44.236	339	61.27	165	3.500	339	42.58	79	52.74	60	28.38	158	19.398	523	40.56	6
Nov. 6	44.575	325	62.92	215	3.839	332	41.79	79	53.34	55	29.96	218	19.921	510	40.50	25
16	44.900	302	65.07	258	4.171	318	41.00	75	53.89	49	32.14	270	20.431	484	40.75	57
26	45.202	270	67.65	291	4.489	296	40.25	68	54.38	41	34.84	315	20.915	447	41.32	88
Dez. 6	45.472	230	70.56	315	4.785	267	39.57	57	54.79	32	37.99	347	21.362	398	42.20	119
16	45.702	182	73.71	329	5.052	228	39.00	44	55.11	21	41.46	369	21.760	337	43.39	145
26	45.884	129	77.00	332	5.280	183	38.56	29	55.32	10	45.15	378	22.097	264	44.84	168
36	46.013		80.32		5.463		38.27		55.42		48.93		22.361		46.52	
Mittl. Ort	42.298		81.76		0.270		39.44		52.33		51.85		14.706		48.29	
sec δ, tg δ	1.252		−0.753		1.079		+0.406		2.650		−2.454		1.762		+1.450	
a, *a*′	+2.1		−6.4		+3.6		−6.5		0.0		−6.6		+4.9		−6.6	
b, *b*′	+0.02		−0.95		−0.01		−0.95		+0.05		−0.94		−0.03		−0.94	

Scheinbare Sternörter 1931

Tag	282) ι Geminorum AR.		282) ι Geminorum Dekl.		285) β Canis min. AR.		285) β Canis min. Dekl.		284) Grb 1308 AR.		284) Grb 1308 Dekl.		286) ρ Geminorum AR.		286) ρ Geminorum Dekl.	
1931	7h 21m		+27° 56′		7h 23m		+8° 25′		7h 23m		+68° 36′		7h 24m		+31° 55′	
Jan. 1	27.876	165	17.68	18	25.647	145	53.28	105	46.56	30	36.67	244	41.876	175	29.13	42
11	28.041	110	17.86	33	25.792	96	52.23	89	46.86	18	39.11	255	42.051	117	29.55	58
20	28.151	53	18.19	45	25.888	45	51.34	73	47.04	4	41.66	258	42.168	58	30.13	69
30	28.204	3	18.64	54	25.933	5	50.61	56	47.08	8	44.24	250	42.226	0	30.82	77
Feb. 9	28.201	55	19.18	58	25.928	51	50.05	40	47.00	20	46.74	232	42.226	54	31.59	80
19	28.146	100	19.76	59	25.877	90	49.65	25	46.80	30	49.06	204	42.172	101	32.39	78
März 1	28.046	135	20.35	56	25.787	123	49.40	12	46.50	38	51.10	168	42.071	140	33.17	71
11	27.911	161	20.91	49	25.664	145	49.28	0	46.12	45	52.78	126	41.931	165	33.88	60
21	27.750	175	21.40	39	25.519	157	49.28	10	45.67	48	54.04	79	41.766	181	34.48	47
31	27.575	177	21.79	27	25.362	159	49.38	19	45.19	49	54.83	30	41.585	185	34.95	32
Apr. 10	27.398	168	22.06	15	25.203	151	49.57	26	44.70	48	55.13	20	41.400	176	35.27	15
20	27.230	150	22.21	3	25.052	135	49.83	34	44.22	44	54.93	67	41.224	157	35.42	2
30	27.080	124	22.24	8	24.917	112	50.17	41	43.78	39	54.26	112	41.067	131	35.40	17
Mai 10	26.956	90	22.16	19	24.805	83	50.58	46	43.39	32	53.14	151	40.936	97	35.23	31
20	26.866	52	21.97	28	24.722	50	51.04	53	43.07	23	51.63	186	40.839	58	34.92	42
30	26.814	13	21.69	34	24.672	15	51.57	58	42.84	14	49.77	214	40.781	17	34.50	52
Juni 9	26.801	28	21.35	40	24.657	21	52.15	63	42.70	5	47.63	235	40.764	25	33.98	60
19	26.829	70	20.95	44	24.678	57	52.78	66	42.65	6	45.28	250	40.789	68	33.38	66
29	26.899	109	20.51	46	24.735	92	53.44	66	42.71	16	42.78	259	40.857	109	32.72	70
Juli 9	27.008	146	20.05	49	24.827	125	54.10	65	42.87	25	40.19	261	40.966	149	32.02	73
19	27.154	180	19.56	51	24.952	156	54.75	61	43.12	34	37.58	257	41.115	184	31.29	75
29	27.334	212	19.05	54	25.108	183	55.36	54	43.46	43	35.01	248	41.299	217	30.54	76
Aug. 8	27.546	241	18.51	56	25.291	210	55.90	42	43.89	50	32.53	234	41.516	246	29.78	78
18	27.787	266	17.95	60	25.501	233	56.32	29	44.39	57	30.19	216	41.762	274	29.00	79
28	28.053	288	17.35	63	25.734	253	56.61	12	44.96	64	28.03	192	42.036	298	28.21	80
Sept. 7	28.341	308	16.72	67	25.987	272	56.73	8	45.60	68	26.11	166	42.334	319	27.41	81
17	28.649	325	16.05	71	26.259	288	56.65	29	46.28	73	24.45	136	42.653	337	26.60	81
27	28.974	339	15.34	74	26.547	301	56.36	52	47.01	76	23.09	103	42.990	351	25.79	80
Okt. 7	29.313	349	14.60	75	26.848	311	55.84	73	47.77	77	22.06	67	43.341	362	24.99	77
17	29.662	355	13.85	75	27.159	316	55.11	93	48.54	79	21.39	29	43.703	369	24.22	73
27	30.017	355	13.10	72	27.475	317	54.18	111	49.33	78	21.10	11	44.072	370	23.49	66
Nov. 6	30.372	349	12.38	65	27.792	312	53.07	124	50.11	75	21.21	53	44.442	365	22.83	56
16	30.721	336	11.73	56	28.104	299	51.83	132	50.86	71	21.74	94	44.807	349	22.27	42
26	31.057	314	11.17	44	28.403	280	50.51	136	51.57	66	22.68	134	45.156	328	21.85	27
Dez. 6	31.371	283	10.73	29	28.683	252	49.15	134	52.23	58	24.02	171	45.484	296	21.58	8
16	31.654	243	10.44	12	28.935	216	47.81	128	52.81	48	25.73	203	45.780	256	21.50	10
26	31.897	197	10.32	5	29.151	174	46.53	115	53.29	38	27.76	228	46.036	208	21.60	28
36	32.094		10.37		29.325		45.38		53.67		30.04		46.244		21.88	
Mittl. Ort	26.658		12.49		24.614		46.97		43.07		32.86		40.591		24.31	
sec δ, tg δ	1.132		+0.530		1.011		+0.148		2.742		+2.553		1.178		+0.623	
a, *a′*	+3.7		−7.0		+3.3		−7.1		+6.3		−7.2		+3.8		−7.2	
b, *b′*	−0.01		−0.94		0.00		−0.93		−0.06		−0.93		−0.01		−0.93	

Tag	287) α Geminorum[1]				289) 25 Monocerotis				291) α Canis min.[2]				292) 24 Lyncis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	7h 30m		+32° 2′		7h 33m		−3° 57′		7h 35m		+5° 24′		7h 37m		+58° 52′	
	s		″		s		″		s		″		s		″	
Jan. 1	13.237	180	35.34	40	51.884	144	13.21	181	42.540	149	17.77	130	13.158	264	28.68	191
11	$_{14}$13.417	123	35.74	56	$_{14}$52.028	95	15.02	167	$_{15}$42.689	101	16.47	114	$_{15}$13.422	174	30.59	207
20	13.540	64	36.30	69	52.123	45	16.69	148	42.790	50	15.33	96	13.596	81	32.66	215
30	13.604	5	36.99	77	52.168	4	18.17	127	42.840	0	14.37	77	13.677	11	34.81	215
Feb. 9	13.609	49	37.76	81	52.164	49	19.44	104	42.840	46	13.60	58	13.666	98	36.96	205
19	13.560	97	38.57	80	52.115	90	20.48	81	42.794	87	13.02	41	13.568	176	39.01	186
März 1	13.463	137	39.37	73	52.025	121	21.29	58	42.707	119	12.61	25	13.392	240	40.87	159
11	13.326	164	40.10	63	51.904	144	21.87	35	42.588	142	12.36	9	13.152	288	42.46	126
21	13.162	180	40.73	50	51.760	158	22.22	14	42.446	156	12.27	3	12.864	317	43.72	88
31	12.982	185	41.23	34	51.602	162	22.36	7	42.290	158	12.30	15	12.547	329	44.60	47
Apr. 10	12.797	177	41.57	17	51.440	155	22.29	27	42.132	153	12.45	25	12.218	323	45.07	5
20	12.620	160	41.74	1	51.285	142	22.02	46	41.979	138	12.70	35	11.895	300	45.12	36
30	12.460	134	41.75	15	51.143	121	21.56	64	41.841	116	13.05	44	11.595	263	44.76	76
Mai 10	12.326	102	41.60	30	51.022	94	20.92	80	41.725	88	13.49	53	11.332	214	44.00	111
20	12.224	63	41.30	42	50.928	63	20.12	95	41.637	58	14.02	61	11.118	156	42.89	143
30	12.161	22	40.88	52	50.865	31	19.17	109	41.579	23	14.63	67	10.962	93	41.46	169
Juni 9	12.139	19	40.36	61	50.834	4	18.08	119	41.556	12	15.30	72	10.869	24	39.77	191
19	12.158	62	39.75	68	50.838	38	16.89	127	41.568	46	16.02	75	10.845	44	37.86	206
29	12.220	102	39.07	72	50.876	72	15.62	131	41.614	81	16.77	76	10.889	112	35.80	217
Juli 9	12.322	142	38.35	76	50.948	105	14.31	131	41.695	114	17.53	75	11.001	179	33.63	222
19	12.464	177	37.59	79	51.053	136	13.00	126	41.809	144	18.28	70	11.180	241	31.41	223
29	12.641	211	36.80	81	51.189	164	11.74	117	41.953	172	18.98	62	11.421	300	29.18	219
Aug. 8	12.852	241	35.99	82	51.353	191	10.57	102	42.125	199	19.60	49	11.721	353	26.99	211
18	13.093	269	35.17	84	51.544	216	9.55	83	42.324	222	20.09	34	12.074	402	24.88	200
28	13.362	293	34.33	86	51.760	238	8.72	59	42.546	244	20.43	15	12.476	445	22.88	184
Sept. 7	13.655	314	33.47	87	51.998	258	8.13	30	42.790	263	20.58	7	12.921	484	21.04	166
17	13.969	334	32.60	87	52.256	276	7.83	2	43.053	281	20.51	31	13.405	515	19.38	144
27	14.303	349	31.73	86	52.532	290	7.85	35	43.334	294	20.20	56	13.920	542	17.94	119
Okt. 7	14.652	362	30.87	84	52.822	302	8.20	68	43.628	305	19.64	81	14.462	561	16.75	91
17	15.014	369	30.03	79	53.124	309	8.88	101	43.933	313	18.83	104	15.023	572	15.84	62
27	15.383	370	29.24	72	53.433	311	9.89	131	44.246	315	17.79	124	15.595	573	15.22	28
Nov. 6	15.753	366	28.52	61	53.744	306	11.20	157	44.561	310	16.55	140	16.168	563	14.94	8
16	16.119	353	27.91	47	54.050	295	12.77	176	44.871	299	15.15	152	16.731	541	15.02	44
26	16.472	331	27.44	31	54.345	277	14.53	191	45.170	280	13.63	157	17.272	505	15.46	80
Dez. 6	16.803	301	27.13	13	54.622	249	16.44	197	45.450	254	12.06	157	17.777	455	16.26	114
16	17.104	261	27.00	6	54.871	213	18.41	197	45.704	220	10.49	152	18.232	392	17.40	147
26	17.365	213	27.06	26	55.084	173	20.38	191	45.924	178	8.97	141	18.624	316	18.87	174
36	17.578		27.32		55.257		22.29		46.102		7.56		18.940		20.61	
Mittl. Ort	11.950		30.80		50.891		20.44		41.528		11.50		10.785		25.81	
sec δ, tg δ	1.180		+0.626		1.002		−0.069		1.004		+0.095		1.935		+1.656	
a, *a′*	+3.8		−7.7		+3.0		−8.0		+3.2		−8.1		+5.1		−8.2	
b, *b′*	−0.02		−0.92		0.00		−0.92		0.00		−0.91		−0.05		−0.91	

[1]) AR. der Mitte; Dekl. des folgenden helleren Sterns.

[2]) Ort des hellen Sterns; die jährliche Parallaxe (0.″33) ist bereits berücksichtigt.

Scheinbare Sternörter 1931

Tag	294) κ Geminorum AR.		Dekl.		295) β Geminorum AR.		Dekl.		297) ζ Volantis AR.		Dekl.		296) π Geminorum AR.		Dekl.	
1931	7h 40m		+24° 33′		7h 41m		+28° 11′		7h 42m		−72° 26′		7h 43m		+33° 35′	
Jan. 1	18.276	180	58.35	11	7.033	185	43.84	11	44.29	9	13.09	379	5.040	197	15.45	44
11	16 18.456	127	58.24	6	16 7.218	130	43.95	29	17 44.38	6	16.88	377	17 5.237	139	15.89	62
20	18.583	71	58.30	22	7.348	73	44.24	44	44.32	20	20.65	365	5.376	80	16.51	76
30	18.654	16	58.52	35	7.421	16	44.68	56	44.12	33	24.30	344	5.456	19	17.27	87
Feb. 9	18.670	35	58.87	44	7.437	37	45.24	63	43.79	45	27.74	313	5.475	37	18.14	92
19	18.635	81	59.31	49	7.400	85	45.87	66	43.34	55	30.87	276	5.438	88	19.06	90
März 1	18.554	119	59.80	50	7.315	123	46.53	65	42.79	63	33.63	233	5.350	129	19.96	85
11	18.435	147	60.30	48	7.192	153	47.18	58	42.16	70	35.96	186	5.221	159	20.81	75
21	18.288	163	60.78	43	7.039	169	47.76	49	41.46	74	37.82	136	5.062	179	21.56	60
31	18.125	169	61.21	35	6.870	176	48.25	39	40.72	77	39.18	84	4.883	186	22.16	43
Apr. 10	17.956	163	61.56	26	6.694	171	48.64	25	39.95	76	40.02	30	4.697	181	22.59	25
20	17.793	149	61.82	16	6.523	156	48.89	12	39.19	74	40.32	23	4.516	166	22.84	7
30	17.644	127	61.98	7	6.367	133	49.01	1	38.45	71	40.09	75	4.350	142	22.91	12
Mai 10	17.517	97	62.05	2	6.234	103	49.00	12	37.74	66	39.34	126	4.208	111	22.79	29
20	17.420	63	62.03	9	6.131	68	48.88	24	37.08	59	38.08	173	4.097	75	22.50	44
30	17.357	27	61.94	16	6.063	30	48.64	33	36.49	50	36.35	215	4.022	35	22.06	56
Juni 9	17.330	12	61.78	22	6.033	9	48.31	40	35.99	41	34.20	253	3.987	7	21.50	68
19	17.342	50	61.56	27	6.042	49	47.91	46	35.58	30	31.67	283	3.994	48	20.82	76
29	17.392	87	61.29	31	6.091	87	47.45	52	35.28	19	28.84	305	4.042	90	20.06	83
Juli 9	17.479	123	60.98	35	6.178	125	46.93	57	35.09	8	25.79	319	4.132	129	19.23	89
19	17.602	157	60.63	39	6.303	159	46.36	61	35.01	5	22.60	323	4.261	166	18.34	93
29	17.759	188	60.24	44	6.462	192	45.75	65	35.06	17	19.37	318	4.427	200	17.41	96
Aug. 8	17.947	216	59.80	50	6.654	221	45.10	69	35.23	28	16.19	300	4.627	232	16.45	98
18	18.163	243	59.30	56	6.875	248	44.41	74	35.51	40	13.19	273	4.859	261	15.47	101
28	18.406	267	58.74	63	7.123	273	43.67	78	35.91	51	10.46	236	5.120	288	14.46	102
Sept. 7	18.673	288	58.11	70	7.396	295	42.89	83	36.42	59	8.10	190	5.408	311	13.44	102
17	18.961	307	57.41	78	7.691	315	42.06	88	37.01	67	6.20	136	5.719	332	12.42	102
27	19.268	324	56.63	85	8.006	332	41.18	91	37.68	72	4.84	75	6.051	350	11.40	101
Okt. 7	19.592	337	55.78	90	8.338	346	40.27	93	38.40	76	4.09	10	6.401	365	10.39	97
17	19.929	345	54.88	94	8.684	355	39.34	92	39.16	76	3.99	57	6.766	375	9.42	91
27	20.274	350	53.94	94	9.039	359	38.42	89	39.92	75	4.56	123	7.141	379	8.51	81
Nov. 6	20.624	347	53.00	91	9.398	356	37.53	82	40.67	70	5.79	186	7.520	376	7.70	69
16	20.971	337	52.09	83	9.754	345	36.71	71	41.37	64	7.65	244	7.896	365	7.01	54
26	21.308	318	51.26	74	10.099	327	36.00	58	42.01	55	10.09	292	8.261	346	6.47	35
Dez. 6	21.626	291	50.52	59	10.426	299	35.42	41	42.56	44	13.01	331	8.607	317	6.12	14
16	21.917	255	49.93	43	10.725	262	35.01	22	43.00	31	16.32	360	8.924	277	5.98	7
26	22.172	211	49.50	25	10.987	216	34.79	3	43.31	17	19.92	377	9.201	230	6.05	29
36	22.383		49.25		11.203		34.76		43.48		23.69		9.431		6.34	
Mittl. Ort	17.114		53.76		5.818		39.57		40.63		26.49		3.726		11.69	
sec δ, tg δ	1.099		+0.457		1.135		+0.536		3.315		−3.160		1.200		+0.664	
a, a'	+3.6		−8.5		+3.7		−8.6		−0.7		−8.7		+3.9		−8.7	
b, b'	−0.01		−0.91		−0.02		−0.90		+0.09		−0.90		−0.02		−0.90	

Tag	300) Grb 1374 AR.	Δ	300) Grb 1374 Dekl.	Δ	303) χ Argus AR.	Δ	303) χ Argus Dekl.	Δ
1931	7h 51m		+74° 6′		7h 54m		−52° 47′	
Jan. 1	63.20	46	19.63	252	63.146	135	34.64	371
11	63.66	30	22.15	270	63.281	60	38.35	368
20*)	(19) 63.96	13	24.85	279	(20) 63.341	14	42.03	355
30	64.09	4	27.64	277	63.327	86	45.58	332
Feb. 9	64.05	20	30.41	262	63.241	153	48.90	301
19	63.85	34	33.03	239	63.088	211	51.91	265
März 1	63.51	47	35.42	205	62.877	259	54.56	223
11	63.04	57	37.47	163	62.618	296	56.79	178
21	62.47	63	39.10	115	62.322	321	58.57	128
31	61.84	66	40.25	64	62.001	333	59.85	78
Apr. 10	61.18	67	40.89	11	61.668	334	60.63	27
20	60.51	64	41.00	42	61.334	323	60.90	24
30	59.87	59	40.58	93	61.011	303	60.66	74
Mai 10	59.28	51	39.65	139	60.708	274	59.92	122
20	58.77	41	38.26	180	60.434	238	58.70	166
30	58.36	30	36.46	215	60.196	195	57.04	206
Juni 9	58.06	18	34.31	245	60.001	147	54.98	241
19	57.88	5	31.86	266	59.854	96	52.57	270
29	57.83	8	29.20	282	59.758	42	49.87	290
Juli 9	57.91	21	26.38	289	59.716	13	46.97	303
19	58.12	33	23.49	291	59.729	70	43.94	307
29	58.45	44	20.58	287	59.799	125	40.87	300
Aug. 8	58.89	56	17.71	276	59.924	180	37.87	283
18	59.45	66	14.95	260	60.104	233	35.04	257
28	60.11	75	12.35	239	60.337	281	32.47	221
Sept. 7	60.86	83	9.96	213	60.618	326	30.26	176
17	61.69	89	7.83	183	60.944	364	28.50	123
27	62.58	95	6.00	148	61.308	395	27.27	64
Okt. 7	63.53	99	4.52	110	61.703	417	26.63	1
17	64.52	102	3.42	68	62.120	429	26.62	64
27	65.54	102	2.74	23	62.549	429	27.26	128
Nov. 6	66.56	100	2.51	23	62.978	417	28.54	189
16	67.56	96	2.74	70	63.395	393	30.43	243
26	68.52	90	3.44	116	63.788	356	32.86	290
Dez. 6	69.42	80	4.60	160	64.144	307	35.76	328
16	70.22	69	6.20	199	64.451	248	39.04	355
26	70.91	55	8.19	232	64.699	182	42.59	369
36	71.46		10.51		64.881		46.28	
Mittl. Ort	58.37		18.32		61.530		47.43	
sec δ, tg δ	3.651		+3.512		1.654		−1.317	
a, *a′*	+7.2		−9.4		+1.5		−9.6	
b, *b′*	−0.11		−0.88		+0.04		−0.88	

Tag	305) χ Geminorum AR.	Δ	305) χ Geminorum Dekl.	Δ	306) ζ Argus AR.	Δ	306) ζ Argus Dekl.	Δ
1931	7h 59m		+27° 59′		8h 1m		−39° 48′	
Jan. 1	18.251	205	24.51	2	10.677	149	16.91	343
11	18.456	151	24.53	22	10.826	90	20.34	338
20*)	(21) 18.607	94	24.75	39	(21) 10.916	28	23.72	324
30	18.701	36	25.14	54	10.944	32	26.96	301
Feb. 9	18.737	18	25.68	64	10.912	87	29.97	271
19	18.719	67	26.32	70	10.825	136	32.68	237
März 1	18.652	109	27.02	69	10.689	178	35.05	198
11	18.543	140	27.71	66	10.511	208	37.03	155
21	18.403	160	28.37	59	10.303	229	38.58	110
31	18.243	170	28.96	47	10.074	240	39.68	65
Apr. 10	18.073	169	29.43	35	9.834	240	40.33	18
20	17.904	157	29.78	22	9.594	231	40.51	27
30	17.747	137	30.00	8	9.363	214	40.24	71
Mai 10	17.610	110	30.08	5	9.149	190	39.53	113
20	17.500	79	30.03	17	8.959	160	38.40	153
30	17.421	43	29.86	28	8.799	125	36.87	188
Juni 9	17.378	6	29.58	38	8.674	88	34.99	219
19	17.372	32	29.20	46	8.586	47	32.80	244
29	17.404	70	28.74	53	8.539	5	30.36	262
Juli 9	17.474	106	28.21	60	8.534	36	27.74	272
19	17.580	141	27.61	66	8.570	79	25.02	274
29	17.721	173	26.95	72	8.649	121	22.28	267
Aug. 8	17.894	204	26.23	78	8.770	162	19.61	251
18	18.098	232	25.45	85	8.932	201	17.10	226
28	18.330	258	24.60	90	9.133	238	14.84	192
Sept. 7	18.588	283	23.70	96	9.371	272	12.92	149
17	18.871	305	22.74	102	9.643	302	11.43	100
27	19.176	325	21.72	106	9.945	327	10.43	46
Okt. 7	19.501	341	20.66	108	10.272	347	9.97	13
17	19.842	354	19.58	108	10.619	360	10.10	73
27	20.196	361	18.50	105	10.979	363	10.83	131
Nov. 6	20.557	362	17.45	98	11.342	358	12.14	186
16	20.919	355	16.47	88	11.700	343	14.00	236
26	21.274	338	15.59	73	12.043	318	16.36	277
Dez. 6	21.612	313	14.86	55	12.361	283	19.13	310
16	21.925	279	14.31	35	12.644	238	22.23	332
26	22.204	236	13.96	14	12.882	186	25.55	343
36	22.440		13.82		13.068		28.98	
Mittl. Ort	17.055		21.10		9.474		28.66	
sec δ, tg δ	1.132		+0.531		1.302		−0.833	
a, *a′*	+3.7		−10.0		+2.1		−10.1	
b, *b′*	−0.02		−0.87		+0.03		−0.86	

*) Bei Stern 305) und 306) lies Jan. 21

Scheinbare Sternörter 1931

Tag	307) 27 Lyncis AR.		307) 27 Lyncis Dekl.		308) ι Navis AR.		308) ι Navis Dekl.	
1931	$8^h\,3^m$		$+51°\,42'$		$8^h\,4^m$		$-24°\,6'$	
Jan. 1	18.508	272	27.43	138	37.287	160	6.03	289
11	18.780	198	28.81	161	37.447	109	8.92	280
21	[22] 18.978	119	30.42	177	[22] 37.556	56	11.72	263
30	19.097	40	32.19	185	37.612	3	14.35	240
Feb. 9	19.137	36	34.04	185	37.615	47	16.75	213
19	19.101	106	35.89	175	37.568	91	18.88	182
März 1	18.995	165	37.64	159	37.477	128	20.70	148
11	18.830	211	39.23	135	37.349	156	22.18	112
21	18.619	242	40.58	106	37.193	174	23.30	76
31	18.377	259	41.64	72	37.019	184	24.06	39
Apr. 10	18.118	259	42.36	37	36.835	183	24.45	3
20	17.859	247	42.73	1	36.652	175	24.48	33
30	17.612	222	42.74	35	36.477	158	24.15	67
Mai 10	17.390	187	42.39	69	36.319	137	23.48	100
20	17.203	142	41.70	99	36.182	110	22.48	130
30	17.061	94	40.71	126	36.072	80	21.18	156
Juni 9	16.967	41	39.45	149	35.992	47	19.62	180
19	16.926	13	37.96	168	35.945	13	17.82	198
29	16.939	68	36.28	182	35.932	22	15.84	210
Juli 9	17.007	122	34.46	193	35.954	57	13.74	216
19	17.129	173	32.53	199	36.011	91	11.58	217
29	17.302	221	30.54	201	36.102	124	9.41	208
Aug. 8	17.523	267	28.53	200	36.226	157	7.33	192
18	17.790	309	26.53	196	36.383	188	5.41	170
28	18.099	348	24.57	188	36.571	217	3.71	140
Sept. 7	18.447	384	22.69	178	36.788	244	2.31	102
17	18.831	416	20.91	164	37.032	270	1.29	59
27	19.247	443	19.27	148	37.302	291	0.70	13
Okt. 7	19.690	466	17.79	127	37.593	308	0.57	37
17	20.156	482	16.52	104	37.901	321	0.94	86
27	20.638	491	15.48	77	38.222	327	1.80	135
Nov. 6	21.129	490	14.71	46	38.549	325	3.15	180
16	21.619	480	14.25	14	38.874	316	4.95	218
26	22.099	456	14.11	20	39.190	298	7.13	250
Dez. 6	22.555	421	14.31	55	39.488	270	9.63	273
16	22.976	373	14.86	88	39.758	235	12.36	288
26	23.349	314	15.74	119	39.993	191	15.24	292
36	23.663		16.93		40.184		18.16	
Mittl. Ort	16.594		26.25		36.299		15.94	
sec δ, tg δ	1.614		+1.267		1.096		−0.447	
a, *a'*	+4.5		−10.3		+2.6		−10.4	
b, *b'*	−0.04		−0.86		+0.02		−0.86	

Tag	309) γ Argus AR.		309) γ Argus Dekl.		311) 20 Navis AR.		311) 20 Navis Dekl.	
1931	$8^h\,7^m$		$-47°\,7'$		$8^h\,10^m$		$-15°\,34'$	
Jan. 1	25.672	156	44.45	362	10.628	171	36.73	252
11	25.828	89	48.07	359	10.799	122	39.25	241
21	25.917	22	51.66	347	10.921	71	41.66	223
30	[23] 25.939	44	55.13	327	[24] 10.992	19	43.89	202
Feb. 9	25.895	106	58.40	298	11.011	29	45.91	176
19	25.789	161	61.38	263	10.982	72	47.67	147
März 1	25.628	206	64.01	223	10.910	108	49.14	118
11	25.422	242	66.24	180	10.802	137	50.32	87
21	25.180	266	68.04	133	10.665	155	51.19	56
31	24.914	280	69.37	84	10.510	165	51.75	26
Apr. 10	24.634	282	70.21	36	10.345	165	52.01	3
20	24.352	275	70.57	13	10.180	157	51.98	33
30	24.077	258	70.44	61	10.023	142	51.65	60
Mai 10	23.819	234	69.83	108	9.881	121	51.05	87
20	23.585	202	68.75	150	9.760	96	50.18	110
30	23.383	166	67.25	190	9.664	67	49.08	131
Juni 9	23.217	125	65.35	224	9.597	36	47.77	150
19	23.092	82	63.11	253	9.561	4	46.27	164
29	23.010	35	60.58	273	9.557	29	44.63	173
Juli 9	22.975	13	57.85	287	9.586	61	42.90	177
19	22.988	62	54.98	292	9.647	93	41.13	175
29	23.050	111	52.06	287	9.740	124	39.38	168
Aug. 8	23.161	158	49.19	273	9.864	154	37.70	153
18	23.319	204	46.46	248	10.018	183	36.17	133
28	23.523	248	43.98	215	10.201	210	34.84	105
Sept. 7	23.771	289	41.83	172	10.411	236	33.79	72
17	24.060	325	40.11	121	10.647	259	33.07	34
27	24.385	354	38.90	65	10.906	281	32.73	7
Okt. 7	24.739	378	38.25	4	11.187	298	32.80	50
17	25.117	392	38.21	58	11.485	311	33.30	93
27	25.509	397	38.79	120	11.796	319	34.23	135
Nov. 6	25.906	391	39.99	180	12.115	320	35.58	172
16	26.297	374	41.79	234	12.435	312	37.30	204
26	26.671	345	44.13	280	12.747	297	39.34	230
Dez. 6	27.016	306	46.93	317	13.044	273	41.64	247
16	27.322	255	50.10	344	13.317	240	44.11	256
26	27.577	196	53.54	359	13.557	200	46.67	257
36	27.773		57.13		13.757		49.24	
Mittl. Ort	24.329		57.32		9.703		45.55	
sec δ, tg δ	1.470		−1.077		1.038		−0.279	
a, *a'*	+1.9		−10.6		+2.8		−10.8	
b, *b'*	+0.04		−0.85		+0.01		−0.84	

Tag	310) Br 1147				312) β Cancri				314) 31 Lyncis				315) ε Argus			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$8^h\ 10^m$		$+75°\ 57'$		$8^h\ 12^m$		$+9°\ 23'$		$8^h\ 18^m$		$+43°\ 24'$		$8^h\ 21^m$		$-59°\ 16'$	
Jan. 1	60.82	57	72.90	246	47.479	193	63.00	118	8.710	260	39.90	83	7.761	184	57.92	378
11	61.39	40	75.36	270	47.672	145	61.82	99	8.970	198	40.73	108	7.945	98	61.70	382
21	61.79	21	78.06	283	47.817	94	60.83	80	9.168	131	41.81	128	8.043	11	65.52	375
30	(24) 62.00	2	80.89	286	(24) 47.911	43	60.03	61	(26) 9.299	61	43.09	142	(26) 8.054	74	69.27	360
Feb. 9	62.02	17	83.75	276	47.954	7	59.42	41	9.360	5	44.51	148	7.980	153	72.87	334
19	61.85	34	86.51	255	47.947	52	59.01	24	9.355	67	45.99	146	7.827	224	76.21	303
März 1	61.51	48	89.06	225	47.895	89	58.77	8	9.288	120	47.45	139	7.603	284	79.24	264
11	61.03	60	91.31	185	47.806	119	58.69	4	9.168	162	48.84	123	7.319	333	81.88	221
21	60.43	70	93.16	139	47.687	138	58.73	15	9.006	191	50.07	104	6.986	368	84.09	173
31	59.73	74	94.55	87	47.549	149	58.88	23	8.815	208	51.11	78	6.618	390	85.82	123
Apr. 10	58.99	76	95.42	33	47.400	149	59.11	30	8.607	211	51.89	51	6.228	400	87.05	72
20	58.23	74	95.75	21	47.251	140	59.41	35	8.396	203	52.40	22	5.828	396	87.77	19
30	57.49	70	95.54	73	47.111	125	59.76	40	8.193	185	52.62	7	5.432	382	87.96	33
Mai 10	56.79	63	94.81	123	46.986	103	60.16	43	8.008	156	52.55	35	5.050	357	87.63	84
20	56.16	52	93.58	168	46.883	77	60.59	46	7.852	122	52.20	62	4.693	322	86.79	132
30	55.64	40	91.90	207	46.806	47	61.05	48	7.730	83	51.58	85	4.371	281	85.47	178
Juni 9	55.24	28	89.83	241	46.759	17	61.53	50	7.647	39	50.73	106	4.090	231	83.69	217
19	54.96	14	87.42	267	46.742	16	62.03	50	7.608	6	49.67	125	3.859	176	81.52	252
29	54.82	0	84.75	285	46.758	48	62.53	49	7.614	50	48.42	139	3.683	116	79.00	279
Juli 9	54.82	14	81.90	299	46.806	80	63.02	45	7.664	94	47.03	150	3.567	53	76.21	298
19	54.96	28	78.91	304	46.886	110	63.47	39	7.758	136	45.53	160	3.514	13	73.23	309
29	55.24	42	75.87	303	46.996	140	63.86	31	7.894	178	43.93	166	3.527	81	70.14	309
Aug. 8	55.66	55	72.84	296	47.136	167	64.17	20	8.072	217	42.27	170	3.608	148	67.05	298
18	56.21	67	69.88	283	47.303	193	64.37	6	8.289	253	40.57	171	3.756	215	64.07	279
28	56.88	77	67.05	264	47.496	219	64.43	11	8.542	287	38.86	170	3.971	278	61.28	248
Sept. 7	57.65	87	64.41	240	47.715	242	64.32	30	8.829	319	37.16	168	4.249	337	58.80	207
17	58.52	96	62.01	211	47.957	264	64.02	51	9.148	349	35.48	161	4.586	389	56.73	157
27	59.48	103	59.90	177	48.221	285	63.51	73	9.497	375	33.87	152	4.975	434	55.16	101
Okt. 7	60.51	109	58.13	139	48.506	301	62.78	93	9.872	397	32.35	141	5.409	468	54.15	38
17	61.60	112	56.74	97	48.807	316	61.85	113	10.269	416	30.94	126	5.877	489	53.77	27
27	62.72	114	55.77	51	49.123	325	60.72	130	10.685	427	29.68	107	6.366	498	54.04	93
Nov. 6	63.86	113	55.26	3	49.448	327	59.42	143	11.112	431	28.61	84	6.864	491	54.97	157
16	64.99	109	55.23	47	49.775	323	57.99	151	11.543	426	27.77	58	7.355	468	56.54	218
26	66.08	103	55.70	96	50.098	310	56.48	154	11.969	410	27.19	29	7.823	430	58.72	270
Dez. 6	67.11	94	56.66	143	50.408	289	54.94	151	12.379	384	26.90	1	8.253	377	61.42	314
16	68.05	82	58.09	186	50.697	259	53.43	142	12.763	344	26.91	33	8.630	312	64.56	348
26	68.87	67	59.95	224	50.956	221	52.01	130	13.107	296	27.24	63	8.942	236	68.04	372
36	69.54		62.19		51.177		50.71		13.403		27.87		9.178		71.76	
Mittl. Ort	55.31		73.31		46.514		57.82		7.162		39.13		6.026		72.82	
sec δ, tg δ	4.125		+4.002		1.014		+0.166		1.377		+0.946		1.958		−1.683	
a, *a'*	+7.6		−10.8		+3.3		−11.0		+4.1		−11.4		+1.2		−11.6	
b, *b'*	−0.14		−0.84		−0.01		−0.84		−0.04		−0.82		+0.06		−0.82	

Scheinbare Sternörter 1931

Tag	316) Br 1197 AR.		316) Br 1197 Dekl.		318) ϑ Chamael. AR.		318) ϑ Chamael. Dekl.		317) o Ursae maj. AR.		317) o Ursae maj. Dekl.		320) Grb 1450 AR.		320) Grb 1450 Dekl.	
1931	$8^h\ 22^m$		$-3°\ 40'$		$8^h\ 22^m$		$-77°\ 15'$		$8^h\ 24^m$		$+60°\ 56'$		$8^h\ 28^m$		$+38°\ 15'$	
Jan. 1	13.720	190	41.69	194	48.71	25	28.72	373	35.44	36	61.14	171	27.601	256	16.62	46
11	13.910	143	43.63	180	48.96	6	32.45	383	35.80	27	62.85	199	27.857	199	17.08	73
21	[27] 14.053	93	45.43	162	[27] 49.02	13	36.28	382	[27] 36.07	17	64.84	219	[28] 28.056	137	17.81	95
30	14.146	43	47.05	140	48.89	31	40.10	370	36.24	7	67.03	229	28.193	73	18.76	112
Feb. 9	14.189	6	48.45	117	48.58	47	43.80	350	36.31	2	69.32	229	28.266	10	19.88	122
19	14.183	50	49.62	94	48.11	63	47.30	321	36.29	11	71.61	220	28.276	48	21.10	126
März 1	14.133	87	50.56	70	47.48	76	50.51	287	36.18	20	73.81	201	28.228	99	22.36	122
11	14.046	117	51.26	47	46.72	87	53.38	245	35.98	26	75.82	173	28.129	139	23.58	114
21	13.929	136	51.73	25	45.85	95	55.83	200	35.72	30	77.55	139	27.990	168	24.72	99
31	13.793	148	51.98	5	44.90	101	57.83	151	35.42	33	78.94	100	27.822	185	25.71	79
Apr. 10	13.645	150	52.03	14	43.89	103	59.34	100	35.09	35	79.94	57	27.637	190	26.50	57
20	13.495	143	51.89	33	42.86	104	60.34	46	34.74	34	80.51	13	27.447	184	27.07	34
30	13.352	130	51.56	49	41.82	102	60.80	7	34.40	31	80.64	31	27.263	169	27.41	9
Mai 10	13.222	110	51.07	65	40.80	98	60.73	60	34.09	28	80.33	73	27.094	145	27.50	16
20	13.112	86	50.42	79	39.82	91	60.13	112	33.81	23	79.60	113	26.949	114	27.34	39
30	13.026	60	49.63	92	38.91	82	59.01	159	33.58	17	78.47	147	26.835	79	26.95	61
Juni 9	12.966	30	48.71	102	38.09	72	57.42	202	33.41	11	77.00	178	26.756	41	26.34	79
19	12.936	0	47.69	109	37.37	59	55.40	242	33.30	5	75.22	204	26.715	1	25.55	97
29	12.936	31	46.60	114	36.78	45	52.98	273	33.25	2	73.18	224	26.714	39	24.58	111
Juli 9	12.967	61	45.46	114	36.33	30	50.25	296	33.27	9	70.94	239	26.753	79	23.47	124
19	13.028	91	44.32	111	36.03	13	47.29	311	33.36	16	68.55	249	26.832	118	22.23	133
29	13.119	120	43.21	103	35.90	3	44.18	316	33.52	22	66.06	253	26.950	155	20.90	142
Aug. 8	13.239	149	42.18	90	35.93	20	41.02	310	33.74	28	63.53	254	27.105	190	19.48	149
18	13.388	176	41.28	72	36.13	37	37.92	294	34.02	34	60.99	249	27.295	225	17.99	153
28	13.564	202	40.56	50	36.50	52	34.98	266	34.36	39	58.50	240	27.520	257	16.46	156
Sept. 7	13.766	227	40.06	23	37.02	67	32.32	229	34.75	45	56.10	226	27.777	288	14.90	158
17	13.993	251	39.83	6	37.69	80	30.03	183	35.20	49	53.84	209	28.065	317	13.32	157
27	14.244	273	39.89	39	38.49	90	28.20	127	35.69	53	51.75	186	28.382	342	11.75	153
Okt. 7	14.517	291	40.28	72	39.39	97	26.93	66	36.22	56	49.89	160	28.724	366	10.22	147
17	14.808	306	41.00	104	40.36	102	26.27	1	36.78	59	48.29	129	29.090	385	8.75	137
27	15.114	317	42.04	135	41.38	103	26.26	66	37.37	60	47.00	94	29.475	398	7.38	124
Nov. 6	15.431	320	43.39	161	42.41	99	26.92	132	37.97	60	46.06	56	29.873	405	6.14	106
16	15.751	316	45.00	183	43.40	93	28.24	193	38.57	60	45.50	15	30.278	402	5.08	85
26	16.067	305	46.83	198	44.33	83	30.17	250	39.17	58	45.35	27	30.680	390	4.23	59
Dez. 6	16.372	284	48.81	206	45.16	70	32.67	298	39.75	54	45.62	70	31.070	367	3.64	32
16	16.656	254	50.87	209	45.86	55	35.65	336	40.29	48	46.32	111	31.437	333	3.32	3
26	16.910	218	52.96	203	46.41	37	39.01	364	40.77	40	47.43	148	31.770	288	3.29	27
36	17.128		54.99		46.78		42.65		41.17		48.91		32.058		3.56	
Mittl. Ort	12.835		48.69		44.41		45.17		32.90		62.22		26.226		15.97	
sec δ, tg δ	1.002		−0.064		4.535		−4.424		2.059		+1.800		1.273		+0.788	
a, a'	+3.0		−11.7		−1.7		−11.7		+5.0		−11.8		+3.9		−12.1	
b, b'	0.00		− 0.81		+0.17		− 0.81		−0.07		− 0.81		−0.03		−0.80	

Tag	321) η Cancri AR.		321) η Cancri Dekl.		326) δ Cancri AR.		326) δ Cancri Dekl.		327) α Pyxidis AR.		327) α Pyxidis Dekl.		328) ι Cancri AR.		328) ι Cancri Dekl.	
1931	8h 28m		+20° 40′		8h 40m		+18° 24′		8h 40m		−32° 55′		8h 42m		+29° 0′	
	s		″		s		″		s		″		s		″	
Jan. 1	44.370	222	39.35	57	47.012	229	35.32	77	50.036	198	60.24	324	32.738	250	49.69	16
11	44.592	173	38.78	35	47.241	182	34.55	55	50.234	145	63.48	322	32.988	198	49.53	11
21	44.765	119	38.43	14	47.423	130	34.00	32	50.379	88	66.70	312	33.186	142	49.64	34
30*)	44.884	64	38.29	6	47.553	76	33.68	11	50.467	32	69.82	294	33.328	83	49.98	55
Feb. 9	44.948	12	38.35	23	47.629	23	33.57	8	50.499	22	72.76	270	33.411	27	50.53	71
19	44.960	37	38.58	36	47.652	26	33.65	24	50.477	73	75.46	240	33.438	26	51.24	82
März 1	44.923	80	38.94	45	47.626	68	33.89	35	50.404	115	77.86	206	33.412	73	52.06	87
11	44.843	112	39.39	50	47.558	103	34.24	42	50.289	149	79.92	168	33.339	110	52.93	87
21	44.731	136	39.89	51	47.455	127	34.66	47	50.140	175	81.60	129	33.229	139	53.80	82
31	44.595	150	40.40	49	47.328	143	35.13	48	49.965	191	82.89	89	33.090	156	54.62	72
Apr. 10	44.445	154	40.89	44	47.185	148	35.61	45	49.774	198	83.78	48	32.934	162	55.34	59
20	44.291	147	41.33	38	47.037	144	36.06	41	49.576	196	84.26	6	32.772	160	55.93	45
30	44.144	134	41.71	30	46.893	133	36.47	36	49.380	186	84.32	34	32.612	148	56.38	29
Mai 10	44.010	113	42.01	23	46.760	115	36.83	30	49.194	170	83.98	73	32.464	128	56.67	12
20	43.897	88	42.24	15	46.645	91	37.13	23	49.024	148	83.25	110	32.336	104	56.79	4
30	43.809	59	42.39	7	46.554	64	37.36	17	48.876	123	82.15	145	32.232	74	56.75	20
Juni 9	43.750	27	42.46	1	46.490	36	37.53	9	48.753	93	80.70	174	32.158	42	56.55	35
19	43.723	6	42.45	8	46.454	4	37.62	3	48.660	61	78.96	200	32.116	8	56.20	48
29	43.729	39	42.37	15	46.450	27	37.65	4	48.599	27	76.96	219	32.108	26	55.72	61
Juli 9	43.768	71	42.22	23	46.477	59	37.61	13	48.572	8	74.77	233	32.134	61	55.11	72
19	43.839	103	41.99	31	46.536	90	37.48	21	48.580	45	72.44	239	32.195	95	54.39	83
29	43.942	134	41.68	40	46.626	119	37.27	31	48.625	82	70.05	237	32.290	127	53.56	94
Aug. 8	44.076	163	41.28	51	46.745	149	36.96	42	48.707	118	67.68	227	32.417	159	52.62	103
18	44.239	192	40.77	61	46.894	177	36.54	54	48.825	154	65.41	208	32.576	190	51.59	112
28	44.431	219	40.16	73	47.071	205	36.00	68	48.979	191	63.33	180	32.766	220	50.47	122
Sept. 7	44.650	245	39.43	85	47.276	231	35.32	82	49.170	226	61.53	146	32.986	249	49.25	130
17	44.895	269	38.58	98	47.507	257	34.50	97	49.396	259	60.07	102	33.235	276	47.95	137
27	45.164	292	37.60	110	47.764	282	33.53	111	49.655	288	59.05	54	33.511	302	46.58	142
Okt. 7	45.456	313	36.50	121	48.046	303	32.42	124	49.943	314	58.51	2	33.813	326	45.16	146
17	45.769	330	35.29	129	48.349	322	31.18	135	50.257	334	58.49	54	34.139	346	43.70	145
27	46.099	342	34.00	134	48.671	337	29.83	143	50.591	347	59.03	108	34.485	361	42.25	142
Nov. 6	46.441	348	32.66	135	49.008	344	28.40	146	50.938	351	60.11	161	34.846	370	40.83	135
16	46.789	346	31.31	132	49.352	345	26.94	145	51.289	347	61.72	208	35.216	371	39.48	122
26	47.135	336	29.99	123	49.697	336	25.49	139	51.636	333	63.80	250	35.587	363	38.26	105
Dez. 6	47.471	317	28.76	110	50.033	320	24.10	127	51.969	308	66.30	284	35.950	344	37.21	84
16	47.788	287	27.66	93	50.353	292	22.83	112	52.277	274	69.14	307	36.294	315	36.37	60
26	48.075	249	26.73	73	50.645	256	21.71	95	52.551	230	72.21	322	36.609	278	35.77	34
36	48.324		26.00		50.901		20.76		52.781		75.43		36.887		35.43	
Mittl. Ort	43.329		36.35		46.027		32.45		49.127		72.38		31.600		48.60	
sec δ, tg δ	1.069		+0.377		1.054		+0.333		1.191		−0.648		1.144		+0.555	
a, a′	+3.5		−12.1		+3.4		−12.9		+2.4		−12.9		+3.6		−13.1	
b, b′	−0.02		− 0.80		−0.01		− 0.76		+0.03		− 0.76		−0.02		− 0.76	

*) Bei Stern 326), 327) und 328) lies Jan. 31

Scheinbare Sternörter 1931

Tag	330) δ Argus AR.		330) δ Argus Dekl.		334) ζ Hydrae AR.		334) ζ Hydrae Dekl.	
1931	$8^h\ 42^m$		$-54°\ 27'$		$8^h\ 51^m$		$+6°\ 12'$	
	s		″		s		″	
Jan. 1	49.243	217	3.41	370	45.741	225	37.82	150
11	49.460	142	7.11	377	45.966	179	36.32	131
21	49.602	65	10.88	375	46.145	130	35.01	111
31	49.667	11	14.63	362	46.275	79	33.90	89
Feb. 9	49.656	84	18.25	340	46.354	29	33.01	66
19	49.572	150	21.65	311	46.383	18	32.35	46
März 1	49.422	207	24.76	276	46.365	59	31.89	26
11	49.215	254	27.52	235	46.306	92	31.63	9
21	48.961	290	29.87	190	46.214	116	31.54	5
31	48.671	314	31.77	143	46.098	132	31.59	18
Apr. 10	48.357	327	33.20	93	45.966	139	31.77	28
20	48.030	328	34.13	42	45.827	137	32.05	36
30	47.702	320	34.55	9	45.690	128	32.41	43
Mai 10	47.382	303	34.46	59	45.562	113	32.84	49
20	47.079	276	33.87	108	45.449	92	33.33	53
30	46.803	244	32.79	153	45.357	69	33.86	56
Juni 9	46.559	205	31.26	193	45.288	43	34.42	58
19	46.354	161	29.33	229	45.245	15	35.00	59
29	46.193	112	27.04	258	45.230	14	35.59	57
Juli 9	46.081	59	24.46	280	45.244	42	36.16	54
19	46.022	4	21.66	294	45.286	71	36.70	48
29	46.018	53	18.72	297	45.357	99	37.18	39
Aug. 8	46.071	112	15.75	291	45.456	128	37.57	27
18	46.183	169	12.84	275	45.584	155	37.84	11
28	46.352	226	10.09	247	45.739	183	37.95	6
Sept. 7	46.578	281	7.62	211	45.922	209	37.89	28
17	46.859	331	5.51	165	46.131	236	37.61	51
27	47.190	375	3.86	112	46.367	261	37.10	75
Okt. 7	47.565	411	2.74	52	46.628	284	36.35	99
17	47.976	438	2.22	11	46.912	303	35.36	123
27	48.414	452	2.33	77	47.215	319	34.13	143
Nov. 6	48.866	455	3.10	140	47.534	329	32.70	161
16	49.321	442	4.50	200	47.863	330	31.09	172
26	49.763	417	6.50	254	48.193	324	29.37	178
Dez. 6	50.180	377	9.04	300	48.517	308	27.59	179
16	50.557	325	12.04	336	48.825	284	25.80	173
26	50.882	261	15.40	362	49.109	250	24.07	162
36	51.143		19.02		49.359		22.45	
Mittl. Ort	47.917		18.85		44.899		33.09	
sec δ, tg δ	1.720		−1.399		1.006		+0.109	
a, *a'*	+1.7		−13.1		+3.2		−13.7	
b, *b'*	+0.06		− 0.76		0.00		− 0.73	

Tag	336) c Carinae AR.		336) c Carinae Dekl.		335) ι Ursae maj. AR.		335) ι Ursae maj. Dekl.	
1931	$8^h\ 53^m$		$-60°\ 22'$		$8^h\ 54^m$		$+48°\ 18'$	
	s		″		s		″	
Jan. 1	30.62	25	32.37	372	31.275	321	47.19	83
11	30.87	17	36.09	383	31.596	257	48.02	117
21	31.04	8	39.92	385	31.853	187	49.19	144
31	31.12	1	43.77	376	32.040	113	50.63	163
Feb. 9	31.11	10	47.53	358	32.153	39	52.26	176
19	31.01	17	51.11	332	32.192	31	54.02	180
März 1	30.84	24	54.43	298	32.161	94	55.82	175
11	30.60	30	57.41	259	32.067	146	57.57	162
21	30.30	34	60.00	215	31.921	186	59.19	141
31	29.96	37	62.15	168	31.735	213	60.60	116
Apr. 10	29.59	39	63.83	117	31.522	227	61.76	85
20	29.20	40	65.00	66	31.295	228	62.61	52
30	28.80	39	65.66	14	31.067	217	63.13	17
Mai 10	28.41	38	65.80	38	30.850	196	63.30	17
20	28.03	35	65.42	90	30.654	167	63.13	50
30	27.68	32	64.52	137	30.487	131	62.63	82
Juni 9	27.36	27	63.15	181	30.356	91	61.81	111
19	27.09	23	61.34	221	30.265	47	60.70	136
29	26.86	17	59.13	254	30.218	3	59.34	158
Juli 9	26.69	11	56.59	279	30.215	44	57.76	177
19	26.58	5	53.80	296	30.259	89	55.99	193
29	26.53	2	50.84	304	30.348	133	54.06	204
Aug. 8	26.55	10	47.80	302	30.481	177	52.02	212
18	26.65	16	44.78	288	30.658	219	49.90	217
28	26.81	23	41.90	265	30.877	260	47.73	218
Sept. 7	27.04	30	39.25	231	31.137	300	45.55	217
17	27.34	36	36.94	187	31.437	337	43.38	211
27	27.70	42	35.07	134	31.774	371	41.27	201
Okt. 7	28.12	46	33.73	76	32.145	403	39.26	188
17	28.58	49	32.97	12	32.548	429	37.38	170
27	29.07	52	32.85	54	32.977	451	35.68	148
Nov. 6	29.59	52	33.39	120	33.428	463	34.20	120
16	30.11	51	34.59	183	33.891	465	33.00	89
26	30.62	48	36.42	240	34.356	457	32.11	54
Dez. 6	31.10	43	38.82	289	34.813	436	31.57	16
16	31.53	37	41.71	331	35.249	401	31.41	21
26	31.90	30	45.02	360	35.650	355	31.62	59
36	32.20		48.62		36.005		32.21	
Mittl. Ort	29.15		49.04		29.610		49.49	
sec δ, tg δ	2.023		−1.759		1.504		+1.123	
a, *a'*	+1.4		−13.8		+4.2		−13.8	
b, *b'*	+0.08		− 0.73		−0.05		− 0.72	

Tag	337) α Cancri AR.		337) α Cancri Dekl.		339) 10 Ursae maj. AR.		339) 10 Ursae maj. Dekl.		341) κ Ursae maj. AR.		341) κ Ursae maj. Dekl.		343) α Volantis AR.		343) α Volantis Dekl.	
1931	8h 54m		+12° 7′		8h 56m		+42° 3′		8h 58m		+47° 25′		9h 1m		−66° 6′	
Jan. 1	43.848	233	36.64	119	11.582	297	23.83	49	57.084	323	47.74	76	23.45	29	56.09	370
11	44.081	188	35.45	98	11.879	239	24.32	81	57.407	261	48.50	109	23.74	19	59.79	387
21	44.269	138	34.47	75	12.118	176	25.13	107	57.668	192	49.59	138	23.93	9	63.66	391
31	44.407	86	33.72	53	12.294	109	26.20	129	57.860	119	50.97	158	24.02	1	67.57	386
Feb. 9	44.493	35	33.19	31	12.403	42	27.49	143	57.979	46	52.55	173	24.01	12	71.43	370
19	44.528	13	32.88	12	12.445	21	28.92	151	58.025	23	54.28	177	23.89	21	75.13	347
März 1	44.515	55	32.76	5	12.424	78	30.43	150	58.002	84	56.05	174	23.68	30	78.60	316
11	44.460	90	32.81	17	12.346	124	31.93	141	57.918	137	57.79	162	23.38	36	81.76	279
21	44.370	115	32.98	28	12.222	160	33.34	127	57.781	177	59.41	143	23.02	42	84.55	236
31	44.255	132	33.26	35	12.062	185	34.61	106	57.604	205	60.84	118	22.60	46	86.91	190
Apr. 10	44.123	139	33.61	39	11.877	197	35.67	82	57.399	219	62.02	89	22.14	48	88.81	140
20	43.984	138	34.00	42	11.680	197	36.49	54	57.180	221	62.91	57	21.66	50	90.21	87
30	43.846	129	34.42	42	11.483	187	37.03	26	56.959	212	63.48	23	21.16	50	91.08	35
Mai 10	43.717	114	34.84	42	11.296	168	37.29	4	56.747	192	63.71	11	20.66	49	91.43	19
20	43.603	94	35.26	41	11.128	142	37.25	33	56.555	164	63.60	44	20.17	46	91.24	72
30	43.509	70	35.67	39	10.986	111	36.92	59	56.391	130	63.16	75	19.71	42	90.52	121
Juni 9	43.439	43	36.06	36	10.875	74	36.33	85	56.261	92	62.41	104	19.29	37	89.31	168
19	43.396	15	36.42	32	10.801	36	35.48	107	56.169	49	61.37	130	18.92	32	87.63	211
29	43.381	14	36.74	27	10.765	4	34.41	127	56.120	5	60.07	153	18.60	25	85.52	246
Juli 9	43.395	43	37.01	21	10.769	44	33.14	145	56.115	39	58.54	172	18.35	18	83.06	275
19	43.438	72	37.22	13	10.813	84	31.69	159	56.154	83	56.82	187	18.17	10	80.31	296
29	43.510	101	37.35	3	10.897	123	30.10	171	56.237	127	54.95	200	18.07	1	77.35	306
Aug. 8	43.611	129	37.38	9	11.020	162	28.39	181	56.364	169	52.95	209	18.06	7	74.29	307
18	43.740	158	37.29	23	11.182	199	26.58	188	56.533	211	50.86	214	18.13	16	71.22	298
28	43.898	185	37.06	39	11.381	236	24.70	193	56.744	252	48.72	217	18.29	25	68.24	277
Sept. 7	44.083	212	36.67	57	11.617	271	22.77	194	56.996	290	46.55	217	18.54	33	65.47	246
17	44.295	239	36.10	77	11.888	304	20.83	193	57.286	328	44.38	212	18.87	41	63.01	203
27	44.534	265	35.33	97	12.192	336	18.90	189	57.614	363	42.26	204	19.28	48	60.98	153
Okt. 7	44.799	288	34.36	116	12.528	366	17.01	181	57.977	394	40.22	191	19.76	54	59.45	95
17	45.087	308	33.20	134	12.894	390	15.20	169	58.371	422	38.31	174	20.30	58	58.50	31
27	45.395	325	31.86	148	13.284	410	13.51	152	58.793	443	36.57	153	20.88	61	58.19	34
Nov. 6	45.720	335	30.38	158	13.694	422	11.99	131	59.236	457	35.04	127	21.49	61	58.53	102
16	46.055	337	28.80	164	14.116	426	10.68	106	59.693	461	33.77	96	22.10	60	59.55	167
26	46.392	332	27.16	165	14.542	419	9.62	76	60.154	453	32.81	61	22.70	57	61.22	226
Dez. 6	46.724	317	25.51	159	14.961	400	8.86	43	60.607	434	32.20	25	23.27	51	63.48	278
16	47.041	293	23.92	148	15.361	370	8.43	9	61.041	401	31.95	14	23.78	44	66.26	323
26	47.334	259	22.44	132	15.731	328	8.34	25	61.442	356	32.09	52	24.22	35	69.49	357
36	47.593		21.12		16.059		8.59		61.798		32.61		24.57		73.06	
Mittl. Ort	42.967		33.14		10.156		25.46		55.469		50.26		21.71		73.79	
sec δ, tg δ	1.023		+0.215		1.347		+0.902		1.478		+1.089		2.470		−2.259	
a, *a′*	+3.3		−13.8		+3.9		−13.9		+4.1		−14.1		+1.0		−14.3	
b, *b′*	−0.01		−0.72		−0.04		−0.72		−0.05		−0.71		+0.11		−0.70	

Tag	344) σ² Ursae maj. AR.		344) Dekl.		345) λ Argus AR.		345) Dekl.		347) ϑ Hydrae AR.		347) Dekl.		348) β Argus AR.		348) Dekl.	
1931	9ʰ 4ᵐ		+67° 24′		9ʰ 5ᵐ		−43° 8′		9ʰ 10ᵐ		+2° 36′		9ʰ 12ᵐ		−69° 25′	
Jan. 1	24.09ˢ	51	54.19″	167	28.231ˢ	234	57.26″	346	47.323ˢ	238	27.69″	176	28.89ˢ	35	39.56″	363
11	24.60	41	55.86	204	28.465	175	60.72	354	47.561	194	25.93	160	29.24	23	43.19	383
21	25.01	29	57.90	233	28.640	113	64.26	351	47.755	146	24.33	139	29.47	11	47.02	393
31	25.30	17	60.23	252	28.753	50	67.77	340	47.901	96	22.94	116	29.58	0	50.95	390
Feb. 9	25.47	5	62.75	260	28.803	11	71.17	320	47.997	46	21.78	93	29.58	12	54.85	379
19	25.52	7	65.35	257	28.792	68	74.37	293	48.043	1	20.85	70	29.46	23	58.64	358
März 1	25.45	18	67.92	243	28.724	118	77.30	260	48.042	43	20.15	49	29.23	32	62.22	330
11	25.27	27	70.35	219	28.606	159	79.90	224	47.999	77	19.66	28	28.91	40	65.52	295
21	25.00	35	72.54	187	28.447	192	82.14	183	47.922	104	19.38	10	28.51	47	68.47	255
31	24.65	40	74.41	148	28.255	215	83.97	139	47.818	122	19.28	5	28.04	52	71.02	209
Apr. 10	24.25	43	75.89	102	28.040	228	85.36	95	47.696	132	19.33	19	27.52	56	73.11	161
20	23.82	44	76.91	54	27.812	233	86.31	49	47.564	133	19.52	31	26.96	58	74.72	108
30	23.38	43	77.45	4	27.579	228	86.80	3	47.431	126	19.83	41	26.38	58	75.80	56
Mai 10	22.95	41	77.49	44	27.351	216	86.83	43	47.305	115	20.24	49	25.80	57	76.36	2
20	22.54	36	77.05	91	27.135	199	86.40	86	47.190	98	20.73	57	25.23	55	76.38	51
30	22.18	31	76.14	135	26.936	175	85.54	128	47.092	77	21.30	63	24.68	51	75.87	103
Juni 9	21.87	25	74.79	174	26.761	147	84.26	165	47.015	55	21.93	67	24.17	46	74.84	152
19	21.62	17	73.05	209	26.614	115	82.61	198	46.960	29	22.60	69	23.71	41	73.32	196
29	21.45	9	70.96	239	26.499	80	80.63	226	46.931	2	23.29	70	23.30	33	71.36	235
Juli 9	21.36	1	68.57	262	26.419	42	78.37	246	46.929	24	23.99	68	22.97	25	69.01	267
19	21.35	8	65.95	279	26.377	1	75.91	260	46.953	52	24.67	62	22.72	16	66.34	290
29	21.43	15	63.16	292	26.376	42	73.31	265	47.005	79	25.29	54	22.56	6	63.44	305
Aug. 8	21.58	23	60.24	298	26.418	85	70.66	260	47.084	107	25.83	42	22.50	4	60.39	309
18	21.81	32	57.26	299	26.503	130	68.06	247	47.191	135	26.25	27	22.54	14	57.30	304
28	22.13	39	54.27	293	26.633	174	65.59	223	47.326	164	26.52	7	22.68	25	54.26	285
Sept. 7	22.52	45	51.34	282	26.807	219	63.36	190	47.490	192	26.59	15	22.93	35	51.41	258
17	22.97	53	48.52	266	27.026	261	61.46	149	47.682	220	26.44	40	23.28	44	48.83	218
27	23.50	59	45.86	244	27.287	299	59.97	101	47.902	247	26.04	66	23.72	52	46.65	170
Okt. 7	24.09	64	43.42	217	27.586	334	58.96	46	48.149	273	25.38	94	24.24	60	44.95	115
17	24.73	68	41.25	183	27.920	361	58.50	13	48.422	295	24.44	121	24.84	65	43.80	51
27	25.41	72	39.42	146	28.281	381	58.63	73	48.717	314	23.23	146	25.49	68	43.29	14
Nov. 6	26.13	74	37.96	103	28.662	391	59.36	132	49.031	326	21.77	167	26.17	69	43.43	82
16	26.87	74	36.93	57	29.053	389	60.68	188	49.357	331	20.10	182	26.86	68	44.25	147
26	27.61	73	36.36	8	29.442	376	62.56	238	49.688	328	18.28	193	27.54	65	45.72	209
Dez. 6	28.34	69	36.28	43	29.818	352	64.94	282	50.016	316	16.35	197	28.19	59	47.81	264
16	29.03	64	36.71	92	30.170	315	67.76	315	50.332	293	14.38	195	28.78	51	50.45	311
26	29.67	56	37.63	138	30.485	268	70.91	339	50.625	261	12.43	186	29.29	42	53.56	347
36	30.23		39.01		30.753		74.30		50.886		10.57		29.71		57.03	
Mittl. Ort	20.88		59.00		27.346		71.83		46.567		22.66		27.03		58.10	
sec δ, tg δ	2.604		+2.404		1.371		−0.937		1.001		+0.046		2.847		−2.665	
a, *a′*	+5.3		−14.4		+2.2		−14.5		+3.1		−14.8		+0.7		−14.9	
b, *b′*	−0.12		− 0.69		+0.05		− 0.69		0.00		− 0.67		+0.13		− 0.67	

Tag	350) 83 Cancri AR.		350) 83 Cancri Dekl.		352) 40 Lyncis AR.		352) 40 Lyncis Dekl.	
1931	9h 15m		+17° 59′		9h 16m		+34° 40′	
Jan. 1	8.906	258	57.28	96	52.616	294	65.50	6
11	9.164	213	56.32	71	52.910	244	65.44	27
21	9.377	164	55.61	46	53.154	187	65.71	56
31	9.541	110	55.15	21	53.341	127	66.27	82
Feb. 9*)	9 9.651	58	54.94	2	10 53.468	66	67.09	102
19	9.709	7	54.96	21	53.534	8	68.11	116
März 1	9.716	37	55.17	35	53.542	44	69.27	123
11	9.679	75	55.52	47	53.498	89	70.50	123
21	9.604	105	55.99	54	53.409	125	71.73	117
31	9.499	125	56.53	56	53.284	150	72.90	105
Apr. 10	9.374	136	57.09	56	53.134	164	73.95	88
20	9.238	139	57.65	53	52.970	168	74.83	69
30	9.099	133	58.18	47	52.802	162	75.52	47
Mai 10	8.966	120	58.65	40	52.640	149	75.99	24
20	8.846	103	59.05	33	52.491	129	76.23	0
30	8.743	82	59.38	24	52.362	104	76.23	23
Juni 9	8.661	56	59.62	15	52.258	76	76.00	45
19	8.605	30	59.77	6	52.182	44	75.55	66
29	8.575	2	59.83	3	52.138	11	74.89	86
Juli 9	8.573	26	59.80	14	52.127	24	74.03	103
19	8.599	55	59.66	25	52.151	57	73.00	119
29	8.654	84	59.41	36	52.208	92	71.81	134
Aug. 8	8.738	113	59.05	49	52.300	125	70.47	146
18	8.851	142	58.56	64	52.425	159	69.01	158
28	8.993	171	57.92	79	52.584	193	67.43	168
Sept. 7	9.164	200	57.13	95	52.777	226	65.75	176
17	9.364	229	56.18	111	53.003	259	63.99	182
27	9.593	258	55.07	127	53.262	291	62.17	185
Okt. 7	9.851	284	53.80	141	53.553	321	60.32	185
17	10.135	308	52.39	153	53.874	347	58.47	181
27	10.443	328	50.86	163	54.221	370	56.66	173
Nov. 6	10.771	342	49.23	167	54.591	386	54.93	160
16	11.113	349	47.56	167	54.977	393	53.33	142
26	11.462	347	45.89	161	55.370	392	51.91	119
Dez. 6	11.809	335	44.28	149	55.762	379	50.72	91
16	12.144	313	42.79	133	56.141	355	49.81	61
26	12.457	282	41.46	112	56.496	321	49.20	28
36	12.739		40.34		56.817		48.92	
Mittl. Ort	8.026		55.74		51.455		67.28	
sec δ, tg δ	1.051		+0.325		1.216		+0.692	
a, *a′*	+3.4		−15.1		+3.7		−15.2	
b, *b′*	−0.02		−0.66		−0.03		−0.65	

Tag	353) κ Argus AR.		353) κ Argus Dekl.		354) α Hydrae AR.		354) α Hydrae Dekl.	
1931	9h 19m		−54° 42′		9h 24m		−8° 21′	
Jan. 1	59.517	278	38.67	358	12.494	242	23.87	230
11	59.795	208	42.25	374	12.736	199	26.17	220
21	60.003	133	45.99	379	12.935	151	28.37	204
31	60.136	57	49.78	373	13.086	102	30.41	184
Feb. 9*)	10 60.193	17	53.51	359	11 13.188	52	32.25	160
19	60.176	87	57.10	337	13.240	6	33.85	136
März 1	60.089	149	60.47	307	13.246	37	35.21	110
11	59.940	202	63.54	271	13.209	72	36.31	84
21	59.738	245	66.25	230	13.137	100	37.15	59
31	59.493	278	68.55	187	13.037	119	37.74	35
Apr. 10	59.215	298	70.42	139	12.918	130	38.09	12
20	58.917	309	71.81	89	12.788	134	38.21	10
30	58.608	311	72.70	40	12.654	131	38.11	30
Mai 10	58.297	303	73.10	11	12.523	121	37.81	49
20	57.994	287	72.99	60	12.402	107	37.32	67
30	57.707	264	72.39	108	12.295	89	36.65	82
Juni 9	57.443	233	71.31	152	12.206	69	35.83	95
19	57.210	197	69.79	193	12.137	45	34.88	106
29	57.013	155	67.86	227	12.092	21	33.82	113
Juli 9	56.858	109	65.59	255	12.071	5	32.69	118
19	56.749	58	63.04	275	12.076	32	31.51	117
29	56.691	3	60.29	287	12.108	59	30.34	112
Aug. 8	56.688	54	57.42	288	12.167	88	29.22	102
18	56.742	113	54.54	280	12.255	117	28.20	87
28	56.855	174	51.74	261	12.372	146	27.33	66
Sept. 7	57.029	233	49.13	233	12.518	177	26.67	41
17	57.262	289	46.80	192	12.695	207	26.26	12
27	57.551	342	44.88	144	12.902	236	26.14	22
Okt. 7	57.893	388	43.44	89	13.138	264	26.36	57
17	58.281	425	42.55	28	13.402	289	26.93	93
27	58.706	452	42.27	36	13.691	309	27.86	129
Nov. 6	59.158	466	42.63	99	14.000	324	29.15	161
16	59.624	466	43.62	162	14.324	330	30.76	188
26	60.090	450	45.24	219	14.654	329	32.64	211
Dez. 6	60.540	420	47.43	270	14.983	317	34.75	226
16	60.960	377	50.13	313	15.300	296	37.01	235
26	61.337	320	53.26	345	15.596	266	39.36	235
36	61.657		56.71		15.862		41.71	
Mittl. Ort	58.517		55.61		11.843		31.20	
sec δ, tg δ	1.731		−1.413		1.011		−0.147	
a, *a′*	+1.9		−15.4		+2.9		−15.6	
b, *b′*	+0.07		−0.64		+0.01		−0.63	

*) Bei Stern 352), 353) und 354) lies Feb. 10

Scheinbare Sternörter 1931

Tag	355) *h* Ursae maj.				359) ψ Argus				358) ϑ Ursae maj.				357) *d* Ursae maj.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$9^h 26^m$		+63° 21′		$9^h 27^m$		−40° 9′		$9^h 28^m$		+51° 59′		$9^h 28^m$		+70° 7′	
Jan. 1	9.24	48	47.25	128	59.510	257	35.42	335	16.985	378	28.98	73	28.47	60	59.30	154
11	9.72	40	48.53	170	59.767	203	38.77	344	17.363	315	29.71	113	29.07	50	60.84	197
21	10.12	31	50.23	204	59.970	145	42.21	344	17.678	243	30.84	147	29.57	38	62.81	231
31	10.43	20	52.27	230	60.115	85	45.65	334	17.921	167	32.31	173	29.95	25	65.12	256
Feb. 10	$_{12}$10.63	10	54.57	244	$_{12}$60.200	26	48.99	317	$_{13}$18.088	88	34.04	192	$_{13}$30.20	11	67.68	270
19	10.73	1	57.01	249	60.226	30	52.16	293	18.176	11	35.96	202	30.31	2	70.38	271
März 1	10.72	10	59.50	243	60.196	80	55.09	264	18.187	61	37.98	202	30.29	15	73.09	263
11	10.62	19	61.93	226	60.116	123	57.73	229	18.126	122	40.00	192	30.14	26	75.72	243
21	10.43	25	64.19	200	59.993	156	60.02	192	18.004	172	41.92	175	29.88	35	78.15	212
31	10.18	31	66.19	166	59.837	182	61.94	151	17.832	210	43.67	150	29.53	43	80.27	175
Apr. 10	9.87	35	67.85	126	59.655	199	63.45	109	17.622	235	45.17	119	29.10	48	82.02	130
20	9.52	36	69.11	82	59.456	206	64.54	66	17.387	245	46.36	84	28.62	50	83.32	81
30	9.16	36	69.93	35	59.250	206	65.20	22	17.142	243	47.20	46	28.12	50	84.13	31
Mai 10	8.80	35	70.28	11	59.044	200	65.42	22	16.899	230	47.66	8	27.62	48	84.44	20
20	8.45	31	70.17	58	58.844	186	65.20	64	16.669	208	47.74	31	27.14	45	84.24	71
30	8.14	27	69.59	101	58.658	168	64.56	104	16.461	178	47.43	68	26.69	40	83.53	118
Juni 9	7.87	22	68.58	143	58.490	145	63.52	142	16.283	142	46.75	103	26.29	34	82.35	162
19	7.65	17	67.15	179	58.345	118	62.10	175	16.141	101	45.72	136	25.95	26	80.73	202
29	7.48	11	65.36	212	58.227	88	60.35	204	16.040	58	44.36	164	25.69	17	78.71	236
Juli 9	7.37	4	63.24	238	58.139	54	58.31	225	15.982	12	42.72	190	25.52	10	76.35	264
19	7.33	3	60.86	261	58.085	19	56.06	241	15.970	35	40.82	211	25.42	0	73.71	287
29	7.36	9	58.25	278	58.066	20	53.65	248	16.005	82	38.71	228	25.42	10	70.84	304
Aug. 8	7.45	16	55.47	289	58.086	60	51.17	246	16.087	129	36.43	241	25.52	18	67.80	314
18	7.61	23	52.58	295	58.146	102	48.71	237	16.216	176	34.02	250	25.70	27	64.66	319
28	7.84	29	49.63	295	58.248	146	46.34	217	16.392	222	31.52	256	25.97	36	61.47	317
Sept. 7	8.13	36	46.68	290	58.394	189	44.17	187	16.614	268	28.96	257	26.33	44	58.30	309
17	8.49	42	43.78	280	58.583	231	42.30	151	16.882	312	26.39	252	26.77	52	55.21	295
27	8.91	47	40.98	264	58.814	272	40.79	105	17.194	355	23.87	245	27.29	60	52.26	275
Okt. 7	9.38	53	38.34	241	59.086	308	39.74	54	17.549	395	21.42	232	27.89	67	49.51	249
17	9.91	57	35.93	213	59.394	340	39.20	2	17.944	431	19.10	212	28.56	73	47.02	217
27	10.48	61	33.80	180	59.734	364	39.22	59	18.375	461	16.98	189	29.29	77	44.85	178
Nov. 6	11.09	64	32.00	141	60.098	380	39.81	117	18.836	482	15.09	159	30.06	81	43.07	134
16	11.73	65	30.59	98	60.478	384	40.98	172	19.318	494	13.50	125	30.87	82	41.73	87
26	12.38	64	29.61	50	60.862	377	42.70	222	19.812	494	12.25	85	31.69	82	40.86	35
Dez. 6	13.02	62	29.11	0	61.239	359	44.92	265	20.306	480	11.40	43	32.51	79	40.51	19
16	13.64	59	29.11	49	61.598	329	47.57	300	20.786	451	10.97	0	33.30	74	40.70	72
26	14.23	53	29.60	99	61.927	288	50.57	325	21.237	409	10.97	43	34.04	66	41.42	122
36	14.76		30.59		62.215		53.82		21.646		11.40		34.70		42.64	
Mittl. Ort	6.66		53.56		58.815		49.98		15.259		34.22		24.92		66.30	
sec δ, tg δ	2.231		+1.994		1.309		−0.844		1.624		+1.280		2.943		+2.768	
a, *a′*	+4.7		−15.7		+2.4		−15.8		+4.1		−15.8		+5.3		−15.8	
b, *b′*	−0.10		− 0.62		+0.04		− 0.62		−0.07		− 0.61		−0.15		− 0.61	

Obere Kulmination Greenwich

Tag	360) 10 Leonis min. AR.	Δ	Dekl.	Δ	366) ϑ Antliae AR.	Δ	Dekl.	Δ
1931	$9^h 30^m$		+36° 41′		$9^h 41^m$		−27° 26′	
Jan. 1	1.369	312	74.75	4	8.027	258	58.37	300
11	1.681	262	74.71	30	8.285	213	61.37	303
21	1.943	206	75.01	62	8.498	163	64.40	298
31	2.149	146	75.63	90	8.661	110	67.38	286
Feb. 10	2.295	83	76.53	113	8.771	57	70.24	266
19	[13] 2.378	23	77.66	127	[16] 8.828	6	72.90	243
März 1	2.401	32	78.93	136	8.834	39	75.33	215
11	2.369	79	80.29	136	8.795	78	77.48	183
21	2.290	117	81.65	130	8.717	110	79.31	150
31	2.173	146	82.95	118	8.607	133	80.81	116
Apr. 10	2.027	162	84.13	101	8.474	149	81.97	80
20	1.865	169	85.14	80	8.325	156	82.77	45
30	1.696	167	85.94	56	8.169	157	83.22	9
Mai 10	1.529	156	86.50	30	8.012	152	83.31	26
20	1.373	139	86.80	4	7.860	141	83.05	59
30	1.234	115	86.84	21	7.719	126	82.46	91
Juni 9	1.119	88	86.63	47	7.593	108	81.55	120
19	1.031	58	86.16	70	7.485	86	80.35	145
29	0.973	25	85.46	91	7.399	61	78.90	167
Juli 9	0.948	8	84.55	112	7.338	34	77.23	183
19	0.956	42	83.43	130	7.304	6	75.40	193
29	0.998	77	82.13	147	7.298	26	73.47	197
Aug. 8	1.075	112	80.66	161	7.324	58	71.50	193
18	1.187	146	79.05	174	7.382	92	69.57	183
28	1.333	182	77.31	185	7.474	128	67.74	163
Sept. 7	1.515	216	75.46	192	7.602	164	66.11	137
17	1.731	251	73.54	199	7.766	201	64.74	103
27	1.982	285	71.55	202	7.967	237	63.71	63
Okt. 7	2.267	318	69.53	201	8.204	271	63.08	17
17	2.585	347	67.52	196	8.475	301	62.91	31
27	2.932	372	65.56	186	8.776	325	63.22	81
Nov. 6	3.304	391	63.70	171	9.101	343	64.03	129
16	3.695	401	61.99	152	9.444	352	65.32	175
26	4.096	403	60.47	127	9.796	350	67.07	217
Dez. 6	4.499	392	59.20	96	10.146	339	69.24	250
16	4.891	371	58.24	64	10.485	317	71.74	278
26	5.262	338	57.60	29	10.802	285	74.52	295
36	5.600		57.31		11.087		77.47	
Mittl. Ort	0.204		77.70		7.477		70.27	
sec δ, tg δ	1.247		+0.746		1.127		−0.520	
a, *a′*	+3.7		−15.9		+2.7		−16.5	
b, *b′*	−0.04		− 0.61		+0.03		−0.57	

Tag	367) ε Leonis AR.	Δ	Dekl.	Δ	369) υ Argus AR.	Δ	Dekl.	Δ
1931	$9^h 41^m$		+24° 5′		$9^h 45^m$		−64° 44′	
Jan. 1	57.205	290	33.01	79	23.74	38	46.31	348
11	57.495	246	32.22	48	24.12	29	49.79	373
21	57.741	198	31.74	18	24.41	20	53.52	387
31	57.939	144	31.56	9	24.61	10	57.39	391
Feb. 10	58.083	89	31.65	35	24.71	0	61.30	386
19	[16] 58.172	36	32.00	56	[17] 24.71	8	65.16	370
März 1	58.208	13	32.56	72	24.63	17	68.86	348
11	58.195	55	33.28	81	24.46	25	72.34	317
21	58.140	89	34.09	86	24.21	31	75.51	281
31	58.051	114	34.95	86	23.90	36	78.32	239
Apr. 10	57.937	131	35.81	80	23.54	39	80.71	194
20	57.806	138	36.61	72	23.15	42	82.65	144
30	57.668	137	37.33	61	22.73	44	84.09	93
Mai 10	57.531	129	37.94	47	22.29	44	85.02	41
20	57.402	116	38.41	32	21.85	43	85.43	12
30	57.286	97	38.73	17	21.42	41	85.31	65
Juni 9	57.189	76	38.90	1	21.01	38	84.66	115
19	57.113	51	38.91	14	20.63	34	83.51	161
29	57.062	26	38.77	29	20.29	29	81.90	203
Juli 9	57.036	2	38.48	46	20.00	23	79.87	239
19	57.038	30	38.02	61	19.77	17	77.48	267
29	57.068	59	37.41	76	19.60	10	74.81	288
Aug. 8	57.127	89	36.65	91	19.50	1	71.93	298
18	57.216	119	35.74	106	19.49	6	68.95	298
28	57.335	150	34.68	122	19.55	15	65.97	288
Sept. 7	57.485	181	33.46	136	19.70	24	63.09	265
17	57.666	213	32.10	151	19.94	32	60.44	233
27	57.879	245	30.59	163	20.26	40	58.11	190
Okt. 7	58.124	276	28.96	174	20.66	47	56.21	138
17	58.400	305	27.22	181	21.13	52	54.83	80
27	58.705	330	25.41	185	21.65	57	54.03	16
Nov. 6	59.035	349	23.56	184	22.22	60	53.87	49
16	59.384	361	21.72	177	22.82	60	54.36	116
26	59.745	364	19.95	165	23.42	59	55.52	179
Dez. 6	60.109	357	18.30	147	24.01	55	57.31	236
16	60.466	340	16.83	125	24.56	50	59.67	287
26	60.806	312	15.58	98	25.06	44	62.54	329
36	61.118		14.60		25.50		65.83	
Mittl. Ort	56.337		34.02		22.68		65.52	
sec δ, tg δ	1.095		+0.447		2.344		−2.120	
a, *a′*	+3.4		−16.5		+1.5		−16.7	
b, *b′*	−0.02		− 0.57		+0.12		− 0.55	

Scheinbare Sternörter 1931

Tag	368) υ Ursae maj. AR.	Δ	Dekl.	Δ	370) 6 Sextantis AR.	Δ	Dekl.	Δ
1931	9h 46m		+59° 21′		9h 47m		−3° 55′	
Jan. 1	8.139	461	44.19	91	46.025	262	3.51	215
11	8.600	392	45.10	135	46.287	223	5.66	202
21	8.992	310	46.45	173	46.510	177	7.68	185
31	9.302	221	48.18	203	46.687	129	9.53	163
Feb. 10	9.523	128	50.21	225	46.816	79	11.16	140
19*)	9.651	36	52.46	236	46.895	32	12.56	115
März 1	9.687	51	54.82	236	46.927	11	13.71	90
11	9.636	128	57.18	226	46.916	48	14.61	67
21	9.508	194	59.44	207	46.868	79	15.28	44
31	9.314	245	61.51	179	46.789	101	15.72	22
Apr. 10	9.069	280	63.30	144	46.688	115	15.94	3
20	8.789	301	64.74	104	46.573	122	15.97	14
30	8.488	307	65.78	62	46.451	123	15.83	31
Mai 10	8.181	298	66.40	17	46.328	117	15.52	45
20	7.883	278	66.57	28	46.211	106	15.07	57
30	7.605	247	66.29	71	46.105	92	14.50	68
Juni 9	7.358	209	65.58	113	46.013	75	13.82	77
19	7.149	165	64.45	151	45.938	54	13.05	85
29	6.984	115	62.94	184	45.884	33	12.20	89
Juli 9	6.869	61	61.10	215	45.851	10	11.31	90
19	6.808	6	58.95	241	45.841	15	10.41	88
29	6.802	50	56.54	261	45.856	41	9.53	83
Aug. 8	6.852	108	53.93	276	45.897	67	8.70	72
18	6.960	166	51.17	287	45.964	96	7.98	57
28	7.126	223	48.30	293	46.060	126	7.41	39
Sept. 7	7.349	280	45.37	293	46.186	157	7.02	15
17	7.629	336	42.44	288	46.343	187	6.87	11
27	7.965	391	39.56	277	46.530	219	6.98	42
Okt. 7	8.356	441	36.79	260	46.749	250	7.40	73
17	8.797	487	34.19	237	46.999	278	8.13	105
27	9.284	526	31.82	209	47.277	301	9.18	136
Nov. 6	9.810	557	29.73	174	47.578	320	10.54	164
16	10.367	575	27.99	134	47.898	331	12.18	188
26	10.942	579	26.65	89	48.229	334	14.06	206
Dez. 6	11.521	568	25.76	41	48.563	328	16.12	219
16	12.089	541	25.35	10	48.891	310	18.31	223
26	12.630	495	25.45	58	49.201	284	20.54	221
36	13.125		26.03		49.485		22.75	
Mittl. Ort	6.029		51.67		45.458		9.33	
sec δ, tg δ	1.962		+1.688		1.002		−0.068	
a, *a′*	+4.3		−16.7		+3.0		−16.8	
b, *b′*	−0.09		− 0.55		0.00		− 0.55	

Tag	372) Grb 1586 AR.	Δ	Dekl.	Δ	378) π Leonis AR.	Δ	Dekl.	Δ
1931	9h 52m		+73° 12′		9h 56m		+8° 22′	
Jan. 1	19.43	75	22.49	139	34.771	277	35.88	162
11	20.18	63	23.88	186	35.048	238	34.26	142
21	20.81	50	25.74	226	35.286	194	32.84	117
31	21.31	35	28.00	257	35.480	145	31.67	91
Feb. 10	21.66	19	30.57	276	35.625	95	30.76	66
19*)	21.85	4	33.33	283	35.720	46	30.10	42
März 1	21.89	12	36.16	279	35.766	2	29.68	19
11	21.77	25	38.95	262	35.768	37	29.49	0
21	21.52	37	41.57	236	35.731	70	29.49	16
31	21.15	47	43.93	200	35.661	93	29.65	29
Apr. 10	20.68	54	45.93	157	35.568	110	29.94	38
20	20.14	58	47.50	108	35.458	118	30.32	45
30	19.56	60	48.58	57	35.340	119	30.77	49
Mai 10	18.96	60	49.15	3	35.221	115	31.26	51
20	18.36	57	49.18	50	35.106	105	31.77	52
30	17.79	53	48.68	101	35.001	91	32.29	51
Juni 9	17.26	46	47.67	149	34.910	75	32.80	48
19	16.80	38	46.18	192	34.835	54	33.28	45
29	16.42	29	44.26	231	34.781	33	33.73	39
Juli 9	16.13	20	41.95	265	34.748	10	34.12	32
19	15.93	10	39.30	292	34.738	13	34.44	24
29	15.83	0	36.38	313	34.751	39	34.68	13
Aug. 8	15.83	11	33.25	328	34.790	66	34.81	1
18	15.94	22	29.97	336	34.856	94	34.80	16
28	16.16	33	26.61	339	34.950	122	34.64	35
Sept. 7	16.49	43	23.22	334	35.072	153	34.29	55
17	16.92	53	19.88	322	35.225	185	33.74	77
27	17.45	62	16.66	304	35.410	216	32.97	100
Okt. 7	18.07	71	13.62	279	35.626	247	31.97	123
17	18.78	79	10.83	248	35.873	276	30.74	145
27	19.57	86	8.35	210	36.149	302	29.29	164
Nov. 6	20.43	90	6.25	166	36.451	322	27.65	181
16	21.33	94	4.59	116	36.773	336	25.84	191
26	22.27	94	3.43	63	37.109	341	23.93	197
Dez. 6	23.21	92	2.80	7	37.450	337	21.96	196
16	24.13	88	2.73	50	37.787	322	20.00	188
26	25.01	80	3.23	104	38.109	298	18.12	175
36	25.81		4.27		38.407		16.37	
Mittl. Ort	15.39		31.62		34.153		33.60	
sec δ, tg δ	3.462		+3.314		1.011		+0.147	
a, *a′*	+5.4		−17.0		+3.2		−17.2	
b, *b′*	−0.19		− 0.53		−0.01		− 0.51	

*) Bei Stern 378) lies Feb. 20

Tag	379) η Leonis AR.	Diff.	379) η Leonis Dekl.	Diff.	380) α Leonis AR.	Diff.	380) α Leonis Dekl.	Diff.	381) λ Hydrae AR.	Diff.	381) λ Hydrae Dekl.	Diff.	382) q Velorum AR.	Diff.	382) q Velorum Dekl.	Diff.
1931	10h 3m		+17° 5′		10h 4m		+12° 17′		10h 7m		−12° 0′		10h 11m		−41° 46′	
Jan. 1	35.107	293	59.03	125	42.610	287	79.16	147	13.895	275	36.77	247	50.484	309	30.72	320
11	35.400	254	57.78	97	42.897	248	77.69	124	14.170	236	39.24	242	50.793	260	33.92	336
21	35.654	209	56.81	69	43.145	204	76.45	97	14.406	192	41.66	230	51.053	205	37.28	344
31	35.863	159	56.12	41	43.349	156	75.48	70	14.598	144	43.96	213	51.258	146	40.72	342
Feb. 10	36.022	107	55.71	13	43.505	105	74.78	43	14.742	95	46.09	191	51.404	87	44.14	332
20	36.129	57	55.58	12	43.610	56	74.35	18	14.837	47	48.00	167	51.491	30	47.46	315
März 1	21 36.186	10	55.70	32	22 43.666	10	74.17	3	22 14.884	3	49.67	141	24 51.521	24	50.61	291
11	36.196	32	56.02	48	43.676	30	74.20	22	14.887	35	51.08	114	51.497	71	53.52	262
21	36.164	66	56.50	59	43.646	64	74.42	36	14.852	67	52.22	88	51.426	110	56.14	229
31	36.098	93	57.09	66	43.582	89	74.78	47	14.785	91	53.10	63	51.316	143	58.43	192
Apr. 10	36.005	110	57.75	69	43.493	107	75.25	53	14.694	109	53.73	37	51.173	167	60.35	153
20	35.895	121	58.44	67	43.386	117	75.78	56	14.585	119	54.10	14	51.006	183	61.88	111
30	35.774	123	59.11	63	43.269	120	76.34	56	14.466	122	54.24	9	50.823	192	62.99	69
Mai 10	35.651	120	59.74	56	43.149	116	76.90	55	14.344	121	54.15	31	50.631	195	63.68	26
20	35.531	110	60.30	48	43.033	107	77.45	51	14.223	113	53.84	51	50.436	190	63.94	18
30	35.421	97	60.78	38	42.926	95	77.96	46	14.110	103	53.33	69	50.246	181	63.76	59
Juni 9	35.324	80	61.16	27	42.831	78	78.42	39	14.007	88	52.64	85	50.065	167	63.17	99
19	35.244	60	61.43	16	42.753	60	78.81	32	13.919	72	51.79	99	49.898	148	62.18	136
29	35.184	38	61.59	4	42.693	39	79.13	23	13.847	52	50.80	109	49.750	125	60.82	169
Juli 9	35.146	15	61.63	9	42.654	16	79.36	14	13.795	31	49.71	117	49.625	98	59.13	196
19	35.131	9	61.54	23	42.638	8	79.50	2	13.764	8	48.54	120	49.527	67	57.17	219
29	35.140	35	61.31	38	42.646	32	79.52	10	13.756	17	47.34	119	49.460	31	54.98	232
Aug. 8	35.175	63	60.93	53	42.678	59	79.42	25	13.773	44	46.15	111	49.429	7	52.66	239
18	35.238	91	60.40	69	42.737	87	79.17	42	13.817	72	45.04	100	49.436	49	50.27	237
28	35.329	121	59.71	87	42.824	116	78.75	59	13.889	104	44.04	82	49.485	94	47.90	225
Sept. 7	35.450	152	58.84	106	42.940	147	78.16	79	13.993	137	43.22	59	49.579	140	45.65	205
17	35.602	184	57.78	124	43.087	179	77.37	99	14.130	170	42.63	30	49.719	188	43.60	174
27	35.786	217	56.54	143	43.266	212	76.38	121	14.300	204	42.33	2	49.907	236	41.86	136
Okt. 7	36.003	249	55.11	160	43.478	243	75.17	141	14.504	238	42.35	37	50.143	280	40.50	89
17	36.252	280	53.51	174	43.721	274	73.76	159	14.742	269	42.72	75	50.423	321	39.61	38
27	36.532	308	51.77	185	43.995	301	72.17	176	15.011	297	43.47	113	50.744	355	39.23	18
Nov. 6	36.840	330	49.92	192	44.296	323	70.41	188	15.308	318	44.60	148	51.099	381	39.41	76
16	37.170	345	48.00	194	44.619	339	68.53	194	15.626	333	46.08	181	51.480	397	40.17	131
26	37.515	352	46.06	190	44.958	345	66.59	196	15.959	339	47.89	208	51.877	400	41.48	185
Dez. 6	37.867	350	44.16	179	45.303	342	64.63	190	16.298	334	49.97	229	52.277	391	43.33	232
16	38.217	336	42.37	163	45.645	330	62.73	179	16.632	320	52.26	243	52.668	370	45.65	274
26	38.553	313	40.74	142	45.975	306	60.94	162	16.952	295	54.69	249	53.038	336	48.39	306
36	38.866		39.32		46.281		59.32		17.247		57.18		53.374		51.45	
Mittl. Ort	34.425		59.33		41.989		78.23		13.462		44.46		50.103		46.22	
sec δ, tg δ	1.046		+0.308		1.023		+0.218		1.022		−0.213		1.341		−0.893	
a, *a′*	+3.3		−17.5		+3.2		−17.6		+2.9		−17.7		+2.5		−17.9	
b, *b′*	−0.02		− 0.49		−0.01		− 0.48		+0.01		− 0.47		+0.05		− 0.45	

Scheinbare Sternörter 1931

Tag	384) ζ Leonis AR.		Dekl.		383) λ Ursae maj. AR.		Dekl.		386) μ Ursae maj. AR.		Dekl.		387) 30 H. Urs. maj. AR.		Dekl.	
1931	10h 12m		+23° 45′		10h 12m		+43° 15′		10h 18m		+41° 50′		10h 19m		+65° 54′	
Jan. 1	52.140	311	40.30	99	57.799	372	27.59	9	14.687	369	42.71	20	13.23	59	47.65	80
11	52.451	272	39.31	67	58.171	325	27.50	34	15.056	325	42.51	23	13.82	52	48.45	132
21	52.723	226	38.64	34	58.496	270	27.84	75	15.381	271	42.74	63	14.34	43	49.77	177
31	52.949	175	38.30	3	58.766	208	28.59	110	15.652	211	43.37	100	14.77	33	51.54	215
Feb. 10	53.124	122	38.27	26	58.974	142	29.69	139	15.863	147	44.37	131	15.10	22	53.69	243
20	53.246	68	38.53	51	59.116	76	31.08	162	16.010	83	45.68	154	15.32	10	56.12	261
März 1	[24]53.314	20	39.04	71	[24]59.192	14	32.70	175	[25]16.093	22	47.22	168	[25]15.42	0	58.73	266
11	53.334	25	39.75	85	59.206	42	34.45	179	16.115	34	48.90	175	15.42	11	61.39	259
21	53.309	62	40.60	93	59.164	90	36.24	175	16.081	82	50.65	173	15.31	19	63.98	244
31	53.247	91	41.53	95	59.074	130	37.99	163	15.999	120	52.38	162	15.12	27	66.42	217
Apr. 10	53.156	112	42.48	93	58.944	158	39.62	144	15.879	148	54.00	145	14.85	33	68.59	182
20	53.044	124	43.41	86	58.786	175	41.06	121	15.731	167	55.45	123	14.52	37	70.41	141
30	52.920	129	44.27	75	58.611	183	42.27	91	15.564	175	56.68	95	14.15	39	71.82	96
Mai 10	52.791	127	45.02	62	58.428	181	43.18	60	15.389	175	57.63	65	13.76	39	72.78	47
20	52.664	119	45.64	47	58.247	173	43.78	27	15.214	167	58.28	33	13.37	39	73.25	3
30	52.545	106	46.11	31	58.074	156	44.05	7	15.047	152	58.61	1	12.98	36	73.22	52
Juni 9	52.439	90	46.42	13	57.918	135	43.98	41	14.895	132	58.62	32	12.62	33	72.70	100
19	52.349	70	46.55	5	57.783	109	43.57	73	14.763	109	58.30	64	12.29	28	71.70	144
29	52.279	48	46.50	22	57.674	81	42.84	103	14.654	81	57.66	95	12.01	23	70.26	186
Juli 9	52.231	25	46.28	40	57.593	48	41.81	131	14.573	52	56.71	122	11.78	17	68.40	222
19	52.206	0	45.88	58	57.545	15	40.50	157	14.521	19	55.49	149	11.61	10	66.18	255
29	52.206	27	45.30	75	57.530	20	38.93	181	14.502	14	54.00	173	11.51	4	63.63	281
Aug. 8	52.233	55	44.55	93	57.550	56	37.12	202	14.516	50	52.27	193	11.47	3	60.82	302
18	52.288	84	43.62	111	57.606	95	35.10	218	14.566	87	50.34	212	11.50	11	57.80	319
28	52.372	115	42.51	128	57.701	134	32.92	233	14.653	125	48.22	227	11.61	18	54.61	327
Sept. 7	52.487	148	41.23	145	57.835	175	30.59	244	14.778	165	45.95	240	11.79	25	51.34	331
17	52.635	182	39.78	162	58.010	216	28.15	251	14.943	205	43.55	248	12.04	32	48.03	328
27	52.817	216	38.16	176	58.226	258	25.64	254	15.148	247	41.07	252	12.36	40	44.75	318
Okt. 7	53.033	251	36.40	188	58.484	299	23.10	253	15.395	288	38.55	252	12.76	47	41.57	303
17	53.284	283	34.52	198	58.783	338	20.57	245	15.683	327	36.03	247	13.23	54	38.54	279
27	53.567	313	32.54	204	59.121	373	18.12	232	16.010	362	33.56	236	13.77	59	35.75	249
Nov. 6	53.880	338	30.50	204	59.494	402	15.80	214	16.372	392	31.20	218	14.36	64	33.26	211
16	54.218	355	28.46	198	59.896	423	13.66	188	16.764	414	29.02	195	15.00	67	31.15	169
26	54.573	365	26.48	187	60.319	434	11.78	158	17.178	427	27.07	166	15.67	69	29.46	119
Dez. 6	54.938	364	24.61	170	60.753	433	10.20	121	17.605	427	25.41	130	16.36	69	28.27	67
16	55.302	352	22.91	147	61.186	420	8.99	81	18.032	414	24.11	91	17.05	67	27.60	11
26	55.654	330	21.44	120	61.606	393	8.18	38	18.446	390	23.20	48	17.72	63	27.49	45
36	55.984		20.24		61.999		7.80		18.836		22.72		18.35		27.94	
Mittl. Ort	51.408		42.74		56.634		34.46		13.593		49.62		10.71		58.31	
sec δ, tg δ	1.093		+0.440		1.373		+0.941		1.342		+0.896		2.451		+2.237	
a, *a′*	+3.3		−17.9		+3.6		−17.9		+3.6		−18.1		+4.3		−18.1	
b, *b′*	−0.03		− 0.45		−0.06		− 0.45		−0.05		− 0.43		−0.13		− 0.43	

Tag	389) μ Hydrae AR.		389) μ Hydrae Dekl.		391) J Carinae AR.		391) J Carinae Dekl.		390) 31 Leonis min. AR.		390) 31 Leonis min. Dekl.		392) Lac. α Antliae AR.		392) Lac. α Antliae Dekl.	
1931	$10^h\ 22^m$		—16° 28′		$10^h\ 22^m$		—73° 40′		$10^h\ 23^m$		+37° 3′		$10^h\ 23^m$		—30° 42′	
Jan. 1	45.499	287	51.99	260	62.56	62	26.75	313	54.958	354	34.87	47	59.806	300	44.69	295
11	45.786	250	54.59	260	63.18	51	29.88	349	55.312	312	34.40	6	60.106	258	47.64	306
21	46.036	206	57.19	251	63.69	38	33.37	375	55.624	263	34.34	34	60.364	211	50.70	308
31	46.242	159	59.70	238	64.07	25	37.12	392	55.887	207	34.68	71	60.575	160	53.78	302
Feb. 10	46.401	110	62.08	218	64.32	11	41.04	397	56.094	147	35.39	102	60.735	107	56.80	288
20	46.511	62	64.26	195	64.43	3	45.01	393	56.241	87	36.41	127	60.842	56	59.68	270
März 1	^{26}46.573	17	66.21	170	^{26}64.40	16	48.94	381	^{27}56.328	30	37.68	144	^{27}60.898	8	62.38	245
11	46.590	22	67.91	143	64.24	27	52.75	360	56.358	22	39.12	153	60.906	35	64.83	218
21	46.568	56	69.34	115	63.97	38	56.35	332	56.336	67	40.65	156	60.871	72	67.01	187
31	46.512	82	70.49	88	63.59	47	59.67	298	56.269	103	42.21	149	60.799	100	68.88	153
Apr. 10	46.430	102	71.37	61	63.12	54	62.65	257	56.166	130	43.70	137	60.699	123	70.41	120
20	46.328	114	71.98	33	62.58	60	65.22	212	56.036	147	45.07	119	60.576	138	71.61	84
30	46.214	121	72.31	8	61.98	65	67.34	163	55.889	156	46.26	96	60.438	146	72.45	48
Mai 10	46.093	121	72.39	17	61.33	68	68.97	111	55.733	157	47.22	71	60.292	149	72.93	12
20	45.972	118	72.22	41	60.65	69	70.08	58	55.576	150	47.93	42	60.143	146	73.05	23
30	45.854	109	71.81	63	59.96	68	70.66	3	55.426	138	48.35	14	59.997	139	72.82	56
Juni 9	45.745	98	71.18	83	59.28	66	70.69	51	55.288	120	48.49	16	59.858	128	72.26	89
19	45.647	84	70.35	100	58.62	62	70.18	104	55.168	100	48.33	45	59.730	113	71.37	118
29	45.563	66	69.35	115	58.00	56	69.14	152	55.068	75	47.88	72	59.617	94	70.19	144
Juli 9	45.497	47	68.20	126	57.44	50	67.62	197	54.993	48	47.16	99	59.523	73	68.75	165
19	45.450	25	66.94	133	56.94	40	65.65	235	54.945	20	46.17	124	59.450	48	67.10	182
29	45.425	0	65.61	134	56.54	30	63.30	266	54.925	10	44.93	148	59.402	20	65.28	192
Aug. 8	45.425	26	64.27	131	56.24	19	60.64	288	54.935	43	43.45	168	59.382	10	63.36	194
18	45.451	56	62.96	121	56.05	7	57.76	301	54.978	77	41.77	187	59.392	45	61.42	190
28	45.507	87	61.75	105	55.98	7	54.75	302	55.055	112	39.90	205	59.437	83	59.52	178
Sept. 7	45.594	122	60.70	83	56.05	21	51.73	291	55.167	150	37.85	219	59.520	121	57.74	157
17	45.716	157	59.87	55	56.26	34	48.82	270	55.317	188	35.66	230	59.641	163	56.17	128
27	45.873	193	59.32	23	56.60	48	46.12	238	55.505	227	33.36	238	59.804	204	54.89	93
Okt. 7	46.066	229	59.09	14	57.08	59	43.74	194	55.732	267	30.98	241	60.008	244	53.96	51
17	46.295	263	59.23	54	57.67	70	41.80	141	55.999	305	28.57	241	60.252	283	53.45	4
27	46.558	294	59.77	94	58.37	78	40.39	83	56.304	339	26.16	235	60.535	316	53.41	45
Nov. 6	46.852	318	60.71	134	59.15	83	39.56	19	56.643	369	23.81	222	60.851	342	53.86	95
16	47.170	335	62.05	170	59.98	87	39.37	48	57.012	391	21.59	204	61.193	359	54.81	144
26	47.505	344	63.75	202	60.85	87	39.85	114	57.403	403	19.55	179	61.552	367	56.25	189
Dez. 6	47.849	342	65.77	229	61.72	84	40.99	178	57.806	405	17.76	148	61.919	363	58.14	229
16	48.191	329	68.06	248	62.56	78	42.77	236	58.211	395	16.28	113	62.282	349	60.43	261
26	48.520	307	70.54	259	63.34	69	45.13	286	58.606	373	15.15	74	62.631	322	63.04	286
36	48.827		73.13		64.03		47.99		58.979		14.41		62.953		65.90	
Mittl. Ort	45.169		60.73		61.71		47.98		54.021		41.10		59.523		57.44	
sec δ, tg δ	1.043		—0.296		3.559		—3.415		1.253		+0.755		1.163		—0.594	
a, *a′*	+2.9		—18.3		+1.2		—18.3		+3.5		—18.3		+2.7		—18.3	
b, *b′*	+0.02		— 0.41		+0.21		— 0.41		—0.05		— 0.41		+0.04		— 0.41	

Scheinbare Sternörter 1931

Tag	393) *s* Carinae				394) 36 Ursae maj.				395) 9 H. Draconis				404) 33 Sextantis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$10^h\ 25^m$		−58° 22′		$10^h\ 26^m$		+56° 19′		$10^h\ 29^m$		+76° 3′		$10^h\ 37^m$		−1° 22′	
Jan. 1	20.848	400	53.23	321	15.136	470	56.25	34	21.31	95	57.31	104	53.948	297	38.43	212
11	21.248	335	56.44	351	15.606	416	56.59	84	22.26	84	58.35	158	54.245	263	40.55	199
21	21.583	263	59.95	370	16.022	349	57.43	130	23.10	70	59.93	206	54.508	223	42.54	181
31	21.846	185	63.65	380	16.371	272	58.73	169	23.80	53	61.99	244	54.731	179	44.35	159
Feb. 10	22.031	106	67.45	379	16.643	190	60.42	201	24.33	35	64.43	272	54.910	131	45.94	134
20	22.137	31	71.24	370	16.833	106	62.43	222	24.68	17	67.15	290	55.041	84	47.28	108
März 1*)	22.168	42	74.94	353	16.939	24	64.65	234	24.85	1	70.05	293	55.125	40	48.36	83
11	22.126	107	78.47	328	16.963	52	66.99	234	24.84	19	72.98	285	55.165	0	49.19	59
21	22.019	164	81.75	297	16.911	118	69.33	224	24.65	34	75.83	265	55.165	34	49.78	36
31	21.855	213	84.72	261	16.793	173	71.57	205	24.31	47	78.48	235	55.131	62	50.14	16
Apr. 10	21.642	251	87.33	220	16.620	216	73.62	179	23.84	59	80.83	196	55.069	82	50.30	1
20	21.391	281	89.53	175	16.404	246	75.41	145	23.25	66	82.79	151	54.987	96	50.29	17
30	21.110	301	91.28	128	16.158	261	76.86	106	22.59	71	84.30	99	54.891	104	50.12	29
Mai 10	20.809	313	92.56	79	15.897	266	77.92	65	21.88	74	85.29	46	54.787	106	49.83	41
20	20.496	315	93.35	28	15.631	259	78.57	21	21.14	73	85.75	10	54.681	104	49.42	50
30	20.181	309	93.63	22	15.372	243	78.78	22	20.41	70	85.65	63	54.577	98	48.92	58
Juni 9	19.872	296	93.41	71	15.129	219	78.56	66	19.71	65	85.02	116	54.479	87	48.34	63
19	19.576	275	92.70	118	14.910	188	77.90	107	19.06	58	83.86	165	54.392	75	47.71	67
29	19.301	246	91.52	162	14.722	151	76.83	146	18.48	50	82.21	210	54.317	60	47.04	69
Juli 9	19.055	210	89.90	200	14.571	111	75.37	181	17.98	39	80.11	249	54.257	43	46.35	68
19	18.845	166	87.90	233	14.460	66	73.56	212	17.59	28	77.62	284	54.214	24	45.67	64
29	18.679	115	85.57	258	14.394	20	71.44	240	17.31	17	74.78	313	54.190	2	45.03	58
Aug. 8	18.564	58	82.99	273	14.374	29	69.04	263	17.14	4	71.65	334	54.188	22	44.45	48
18	18.506	4	80.26	281	14.403	81	66.41	282	17.10	8	68.31	349	54.210	49	43.97	34
28	18.510	72	77.45	277	14.484	133	63.59	294	17.18	21	64.82	358	54.259	77	43.63	17
Sept. 7	18.582	142	74.68	262	14.617	188	60.65	303	17.39	34	61.24	359	54.336	109	43.46	4
17	18.724	214	72.06	237	14.805	242	57.62	306	17.73	47	57.65	354	54.445	142	43.50	29
27	18.938	284	69.69	202	15.047	297	54.56	303	18.20	59	54.11	340	54.587	177	43.79	56
Okt. 7	19.222	350	67.67	156	15.344	352	51.53	294	18.79	71	50.71	320	54.764	213	44.35	85
17	19.572	409	66.11	104	15.696	402	48.59	278	19.50	81	47.51	292	54.977	247	45.20	114
27	19.981	458	65.07	46	16.098	449	45.81	256	20.31	92	44.59	257	55.224	278	46.34	143
Nov. 6	20.439	494	64.61	18	16.547	488	43.25	227	21.23	99	42.02	215	55.502	305	47.77	169
16	20.933	516	64.79	81	17.035	517	40.98	191	22.22	105	39.87	166	55.807	325	49.46	191
26	21.449	522	65.60	143	17.552	535	39.07	149	23.27	109	38.21	112	56.132	337	51.37	207
Dez. 6	21.971	509	67.03	202	18.087	537	37.58	102	24.36	109	37.09	53	56.469	340	53.44	218
16	22.480	481	69.05	255	18.624	524	36.56	51	25.45	106	36.56	6	56.809	332	55.62	222
26	22.961	437	71.60	299	19.148	495	36.05	0	26.51	100	36.62	66	57.141	313	57.84	219
36	23.398		74.59		19.643		36.05		27.51		37.28		57.454		60.03	
Mittl. Ort	20.478		72.29		13.481		66.23		16.87		69.48		53.609		42.25	
sec δ, tg δ	1.908		−1.625		1.804		+1.501		4.154		+4.032		1.000		−0.024	
a, *a′*	+2.2		−18.4		+3.9		−18.4		+5.2		−18.5		+3.1		−18.8	
b, *b′*	+0.10		− 0.40		−0.09		− 0.40		−0.25		− 0.39		0.00		− 0.35	

*) Bei Stern 404) lies März 2

Tag	406) ϑ Argus AR.		406) ϑ Argus Dekl.		407) 42 Leonis min. AR.		407) 42 Leonis min. Dekl.		408) μ Argus AR.		408) μ Argus Dekl.		409) l Leonis AR.		409) l Leonis Dekl.	
1931	$10^h 40^m$		−64° 1′		$10^h 42^m$		+31° 2′		$10^h 43^m$		−49° 3′		$10^h 45^m$		+10° 54′	
Jan. 1	29.70	48	37.09	306	2.735	345	40.74	88	47.852	369	1.92	307	38.351	310	38.33	170
11	30.18	41	40.15	342	3.080	310	39.86	49	48.221	319	4.99	332	38.661	278	36.63	147
21	30.59	33	43.57	367	3.390	266	39.37	9	48.540	263	8.31	350	38.939	239	35.16	119
31	30.92	23	47.24	382	3.656	214	39.28	28	48.803	202	11.81	358	39.178	193	33.97	90
Feb. 10	31.15	15	51.06	387	3.870	160	39.56	61	49.005	137	15.39	356	39.371	145	33.07	61
20	31.30	6	54.93	384	4.030	104	40.17	90	49.142	74	18.95	346	39.516	98	32.46	33
März 2	31.36	3	58.77	371	4.134	51	41.07	112	49.216	15	22.41	329	39.614	51	32.13	8
11	[3] 31.33	11	62.48	351	[3] 4.185	3	42.19	127	[4] 49.231	40	25.70	305	[4] 39.665	9	32.05	15
21	31.22	17	65.99	323	4.188	41	43.46	135	49.191	88	28.75	277	39.674	26	32.20	32
31	31.05	24	69.22	290	4.147	76	44.81	135	49.103	129	31.52	243	39.648	56	32.52	45
Apr. 10	30.81	29	72.12	251	4.071	103	46.16	130	48.974	161	33.95	205	39.592	79	32.97	55
20	30.52	32	74.63	208	3.968	122	47.46	118	48.813	188	36.00	164	39.513	94	33.52	61
30	30.20	36	76.71	160	3.846	132	48.64	101	48.625	205	37.64	121	39.419	103	34.13	63
Mai 10	29.84	38	78.31	111	3.714	136	49.65	82	48.420	217	38.85	76	39.316	106	34.76	62
20	29.46	39	79.42	60	3.578	133	50.47	60	48.203	221	39.61	30	39.210	105	35.38	59
30	29.07	39	80.02	8	3.445	125	51.07	35	47.982	219	39.91	16	39.105	99	35.97	54
Juni 9	28.68	38	80.10	44	3.320	113	51.42	10	47.763	212	39.75	60	39.006	89	36.51	48
19	28.30	36	79.66	95	3.207	97	51.52	15	47.551	199	39.15	103	38.917	77	36.99	40
29	27.94	34	78.71	141	3.110	77	51.37	41	47.352	181	38.12	143	38.840	62	37.39	31
Juli 9	27.60	29	77.30	185	3.033	56	50.96	65	47.171	155	36.69	177	38.778	45	37.70	20
19	27.31	24	75.45	222	2.977	32	50.31	89	47.016	125	34.92	208	38.733	26	37.90	7
29	27.07	18	73.23	251	2.945	6	49.42	113	46.891	89	32.84	230	38.707	5	37.97	6
Aug. 8	26.89	12	70.72	274	2.939	22	48.29	135	46.802	48	30.54	246	38.702	20	37.91	21
18	26.77	4	67.98	285	2.961	53	46.94	155	46.754	1	28.08	252	38.722	45	37.70	39
28	26.73	4	65.13	288	3.014	86	45.39	175	46.753	50	25.56	248	38.767	74	37.31	58
Sept. 7	26.77	12	62.25	279	3.100	120	43.64	192	46.803	105	23.08	236	38.841	105	36.73	78
17	26.89	21	59.46	258	3.220	157	41.72	208	46.908	162	20.72	212	38.946	139	35.95	100
27	27.10	30	56.88	227	3.377	196	39.64	221	47.070	220	18.60	180	39.085	174	34.95	123
Okt. 7	27.40	38	54.61	185	3.573	235	37.43	231	47.290	276	16.80	137	39.259	209	33.72	144
17	27.78	45	52.76	136	3.808	273	35.12	236	47.566	327	15.43	89	39.468	245	32.28	166
27	28.23	52	51.40	78	4.081	309	32.76	237	47.893	373	14.54	34	39.713	278	30.62	183
Nov. 6	28.75	57	50.62	15	4.390	339	30.39	231	48.266	409	14.20	25	39.991	306	28.79	199
16	29.32	59	50.47	48	4.729	363	28.08	220	48.675	434	14.45	84	40.297	328	26.80	207
26	29.91	61	50.95	113	5.092	380	25.88	201	49.109	445	15.29	142	40.625	343	24.73	212
Dez. 6	30.52	59	52.08	175	5.472	385	23.87	177	49.554	443	16.71	196	40.968	347	22.61	209
16	31.11	57	53.83	231	5.857	379	22.10	147	49.997	427	18.67	245	41.315	342	20.52	199
26	31.68	52	56.14	281	6.236	362	20.63	113	50.424	395	21.12	286	41.657	325	18.53	184
36	32.20		58.95		6.598		19.50		50.819		23.98		41.982		16.69	
Mittl. Ort	29.47		57.27		2.020		46.52		47.730		19.24		37.940		38.56	
sec δ, tg δ	2.284		−2.053		1.167		+0.602		1.526		−1.153		1.018		+0.193	
a, a′	+2.1		−18.8		+3.3		−18.9		+2.6		−18.9		+3.2		−19.0	
b, b′	+0.13		−0.34		−0.04		−0.33		+0.07		−0.33		−0.01		−0.32	

Scheinbare Sternörter 1931

Tag	415) *i* Velorum AR.		415) Dekl.		416) β Ursae maj. AR.		416) Dekl.		417) α Ursae maj. AR.		417) Dekl.		418) χ Leonis AR.		418) Dekl.	
1931	$10^h 56^m$		$-41° 51'$		$10^h 57^m$		$+56° 44'$		$10^h 59^m$		$+62° 6'$		$11^h 1^m$		$+7° 42'$	
Jan. 1	59.078	353	4.30	293	42.899	498	57.33	0	30.93	57	72.81	17	27.849	314	34.08	187
11	59.431	312	7.23	316	43.397	452	57.33	54	31.50	52	72.98	73	28.163	285	32.21	166
21	59.743	263	10.39	330	43.849	392	57.87	105	32.02	44	73.71	126	28.448	247	30.55	140
31	60.006	210	13.69	335	44.241	322	58.92	150	32.46	37	74.97	172	28.695	205	29.15	113
Feb. 10	60.216	153	17.04	331	44.563	242	60.42	189	32.83	27	76.69	210	28.900	158	28.02	84
20	60.369	96	20.35	321	44.805	160	62.31	217	33.10	18	78.79	238	29.058	111	27.18	55
März 2	60.465	43	23.56	304	7 44.965	78	64.48	236	3 33.28	8	81.17	255	8 29.169	66	26.63	30
11	7 60.508	7	26.60	280	45.043	1	66.84	244	33.36	1	83.72	261	29.235	25	26.33	5
21	60.501	50	29.40	253	45.042	72	69.28	240	33.35	9	86.33	256	29.260	12	26.28	15
31	60.451	87	31.93	220	44.970	133	71.68	228	33.26	16	88.89	240	29.248	42	26.43	31
Apr. 10	60.364	118	34.13	186	44.837	183	73.96	205	33.10	23	91.29	214	29.206	66	26.74	43
20	60.246	142	35.99	149	44.654	221	76.01	175	32.87	27	93.43	181	29.140	84	27.17	52
30	60.104	158	37.48	109	44.433	247	77.76	139	32.60	31	95.24	142	29.056	94	27.69	57
Mai 10	59.946	170	38.57	68	44.186	261	79.15	99	32.29	32	96.66	98	28.962	101	28.26	60
20	59.776	175	39.25	27	43.925	264	80.14	55	31.97	33	97.64	51	28.861	101	28.86	59
30	59.601	175	39.52	14	43.661	257	80.69	11	31.64	32	98.15	2	28.760	98	29.45	58
Juni 9	59.426	172	39.38	54	43.404	242	80.80	35	31.32	30	98.17	46	28.662	91	30.03	54
19	59.254	162	38.84	93	43.162	219	80.45	79	31.02	28	97.71	93	28.571	82	30.57	48
29	59.092	147	37.91	128	42.943	191	79.66	121	30.74	25	96.78	138	28.489	70	31.05	41
Juli 9	58.945	129	36.63	159	42.752	156	78.45	162	30.49	20	95.40	179	28.419	55	31.46	32
19	58.816	106	35.04	186	42.596	118	76.83	197	30.29	16	93.61	217	28.364	39	31.78	22
29	58.710	76	33.18	207	42.478	75	74.86	229	30.13	10	91.44	251	28.325	18	32.00	10
Aug. 8	58.634	43	31.11	219	42.403	29	72.57	258	30.03	5	88.93	279	28.307	3	32.10	5
18	58.591	4	28.92	225	42.374	20	69.99	282	29.98	0	86.14	303	28.310	28	32.05	21
28	58.587	39	26.67	221	42.394	73	67.17	300	29.98	7	83.11	321	28.338	56	31.84	40
Sept. 7	58.626	86	24.46	209	42.467	128	64.17	314	30.05	14	79.90	333	28.394	87	31.44	61
17	58.712	136	22.37	186	42.595	184	61.03	322	30.19	20	76.57	339	28.481	121	30.83	84
27	58.848	187	20.51	155	42.779	243	57.81	323	30.39	27	73.18	338	28.602	157	29.99	107
Okt. 7	59.035	239	18.96	117	43.022	302	54.58	319	30.66	33	69.80	331	28.759	194	28.92	132
17	59.274	287	17.79	70	43.324	359	51.39	308	30.99	41	66.49	317	28.953	230	27.60	154
27	59.561	330	17.09	19	43.683	412	48.31	288	31.40	46	63.32	294	29.183	265	26.06	176
Nov. 6	59.891	366	16.90	35	44.095	460	45.43	262	31.86	52	60.38	264	29.448	296	24.30	194
16	60.257	392	17.25	90	44.555	499	42.81	229	32.38	56	57.74	226	29.744	320	22.36	207
26	60.649	407	18.15	144	45.054	525	40.52	188	32.94	60	55.48	182	30.064	338	20.29	215
Dez. 6	61.056	410	19.59	194	45.579	539	38.64	141	33.54	61	53.66	132	30.402	344	18.14	216
16	61.466	399	21.53	238	46.118	537	37.23	89	34.15	61	52.34	76	30.746	342	15.98	211
26	61.865	375	23.91	275	46.655	516	36.34	36	34.76	58	51.58	20	31.088	328	13.87	198
36	62.240		26.66		47.171		35.98		35.34		51.38		31.416		11.89	
Mittl. Ort	59.063		19.84		41.451		69.44		29.15		85.82		27.552		33.90	
sec δ, tg δ	1.343		−0.896		1.824		+1.525		2.139		+1.891		1.009		+0.135	
a, *a'*	+2.7		−19.3		+3.6		−19.3		+3.7		−19.3		+3.1		−19.4	
b, *b'*	+0.06		− 0.27		−0.10		− 0.27		−0.12		− 0.26		−0.01		− 0.25	

Tag	420) ψ Ursae maj. AR.		420) Dekl.		421) β Crateris AR.		421) Dekl.		422) δ Leonis AR.		422) Dekl.		423) ϑ Leonis AR.		423) Dekl.	
1931	11h 5m		+44° 51′		11h 8m		−22° 26′		11h 10m		+20° 53′		11h 10m		+15° 48′	
	s		″		s		″		s		″		s		″	
Jan. 1	48.448	412	72.99	54	15.741	321	45.76	264	26.919	335	62.91	146	37.623	327	22.44	164
11	48.860	376	72.45	5	16.062	290	48.40	271	27.254	308	61.45	114	37.950	299	20.80	135
21	49.236	329	72.40	44	16.352	251	51.11	271	27.562	269	60.31	78	38.249	263	19.45	104
31	49.565	274	72.84	88	16.603	206	53.82	264	27.831	226	59.53	42	38.512	220	18.41	70
Feb. 10	49.839	212	73.72	128	16.809	159	56.46	250	28.057	178	59.11	8	38.732	173	17.71	38
20	50.051	147	75.00	160	16.968	112	58.96	232	28.235	128	59.03	23	38.905	125	17.33	7
März 2	50.198	84	76.60	183	17.080	66	61.28	210	28.363	80	59.26	51	39.030	78	17.26	20
11	[9] 50.282	23	78.43	197	[10] 17.146	24	63.38	186	[10] 28.443	35	59.77	73	[10] 39.108	35	17.46	43
21	50.305	32	80.40	202	17.170	13	65.24	159	28.478	5	60.50	88	39.143	4	17.89	60
31	50.273	80	82.42	198	17.157	44	66.83	131	28.473	39	61.38	99	39.139	37	18.49	74
Apr. 10	50.193	117	84.40	184	17.113	70	68.14	104	28.434	67	62.37	103	39.102	62	19.23	81
20	50.076	146	86.24	164	17.043	89	69.18	75	28.367	87	63.40	102	39.040	82	20.04	84
30	49.930	166	87.88	138	16.954	102	69.93	46	28.280	100	64.42	96	38.958	95	20.88	83
Mai 10	49.764	177	89.26	107	16.852	112	70.39	19	28.180	108	65.38	86	38.863	102	21.71	77
20	49.587	180	90.33	73	16.740	115	70.58	8	28.072	110	66.24	74	38.761	104	22.48	70
30	49.407	176	91.06	37	16.625	115	70.50	35	27.962	108	66.98	58	38.657	103	23.18	60
Juni 9	49.231	166	91.43	1	16.510	112	70.15	60	27.854	102	67.56	42	38.554	97	23.78	47
19	49.065	152	91.42	39	16.398	105	69.55	82	27.752	93	67.98	23	38.457	88	24.25	34
29	48.913	131	91.03	75	16.293	95	68.73	102	27.659	81	68.21	4	38.369	77	24.59	20
Juli 9	48.782	108	90.28	110	16.198	82	67.71	120	27.578	65	68.25	15	38.292	62	24.79	4
19	48.674	82	89.18	143	16.116	65	66.51	132	27.513	48	68.10	35	38.230	46	24.83	13
29	48.592	51	87.75	174	16.051	45	65.19	141	27.465	28	67.75	56	38.184	27	24.70	31
Aug. 8	48.541	18	86.01	202	16.006	20	63.78	144	27.437	4	67.19	77	38.157	4	24.39	49
18	48.523	18	83.99	227	15.986	8	62.34	140	27.433	21	66.42	99	38.153	21	23.90	69
28	48.541	57	81.72	248	15.994	39	60.94	130	27.454	50	65.43	119	38.174	49	23.21	89
Sept. 7	48.598	98	79.24	266	16.033	75	59.64	115	27.504	82	64.24	140	38.223	80	22.32	111
17	48.696	144	76.58	280	16.108	114	58.49	91	27.586	118	62.84	161	38.303	115	21.21	132
27	48.840	190	73.78	288	16.222	155	57.58	62	27.704	155	61.23	181	38.418	151	19.89	153
Okt. 7	49.030	238	70.90	292	16.377	197	56.96	27	27.859	193	59.42	198	38.569	190	18.36	174
17	49.268	285	67.98	290	16.574	237	56.69	11	28.052	233	57.44	213	38.759	227	16.62	191
27	49.553	331	65.08	281	16.811	275	56.80	53	28.285	269	55.31	224	38.986	264	14.71	207
Nov. 6	49.884	370	62.27	265	17.086	309	57.33	96	28.554	303	53.07	230	39.250	296	12.64	217
16	50.254	404	59.62	242	17.395	334	58.29	137	28.857	330	50.77	230	39.546	324	10.47	223
26	50.658	428	57.20	212	17.729	351	59.66	175	29.187	350	48.47	224	39.870	343	8.24	222
Dez. 6	51.086	440	55.08	174	18.080	358	61.41	209	29.537	360	46.23	211	40.213	352	6.02	215
16	51.526	440	53.34	132	18.438	353	63.50	236	29.897	361	44.12	191	40.565	352	3.87	200
26	51.966	427	52.02	85	18.791	337	65.86	256	30.258	348	42.21	166	40.917	340	1.87	180
36	52.393		51.17		19.128		68.42		30.606		40.55		41.257		0.07	
Mittl. Ort	47.542		83.36		15.715		55.55		26.517		67.22		37.287		25.19	
sec δ, tg δ	1.411		+0.996		1.082		−0.413		1.070		+0.382		1.039		+0.283	
a, *a′*	+3.4		−19.5		+2.9		−19.5		+3.2		−19.6		+3.2		−19.6	
b, *b′*	−0.06		−0.23		+0.03		−0.22		−0.02		−0.21		−0.02		−0.21	

Scheinbare Sternörter 1931

Tag	425) ν Ursae maj. AR.		425) Dekl.		426) δ Crateris AR.		426) Dekl.		427) σ Leonis AR.		427) Dekl.		428) π Centauri AR.		428) Dekl.	
1931	11h 14m		+33° 27′		11h 15m		−14° 24′		11h 17m		+6° 24′		11h 17m		−54° 6′	
Jan. 1	46.016	368	67.57	104	53.381	319	10.73	246	34.968	321	27.92	196	50.965	434	27.36	277
11	46.384	338	66.53	61	53.700	289	13.19	246	35.289	293	25.96	175	51.399	388	30.13	312
21	46.722	298	65.92	18	53.989	253	15.65	240	35.582	259	24.21	151	51.787	333	33.25	338
31	47.020	251	65.74	24	54.242	212	18.05	227	35.841	218	22.70	124	52.120	270	36.63	354
Feb. 10	47.271	198	65.98	63	54.454	166	20.32	209	36.059	173	21.46	94	52.390	203	40.17	362
20	47.469	144	66.61	96	54.620	121	22.41	188	36.232	128	20.52	66	52.593	137	43.79	360
März 2	47.613	89	67.57	123	54.741	76	24.29	164	36.360	83	19.86	38	52.730	72	47.39	350
12	47.702	37	68.80	143	54.817	35	25.93	139	36.443	41	19.48	14	52.802	10	50.89	333
21	[12] 47.739	8	70.23	154	[12] 54.852	1	27.32	115	[12] 36.484	4	19.34	8	[12] 52.812	46	54.22	310
31	47.731	48	71.77	158	54.851	31	28.47	89	36.488	27	19.42	25	52.766	95	57.32	282
Apr. 10	47.683	80	73.35	154	54.820	57	29.36	64	36.461	52	19.67	39	52.671	138	60.14	248
20	47.603	105	74.89	143	54.763	76	30.00	41	36.409	72	20.06	49	52.533	173	62.62	211
30	47.498	122	76.32	128	54.687	89	30.41	18	36.337	85	20.55	56	52.360	201	64.73	169
Mai 10	47.376	132	77.60	106	54.598	98	30.59	3	36.252	93	21.11	59	52.159	224	66.42	126
20	47.244	135	78.66	82	54.500	103	30.56	23	36.159	96	21.70	60	51.935	238	67.68	79
30	47.109	134	79.48	56	54.397	103	30.33	43	36.063	96	22.30	60	51.697	247	68.47	32
Juni 9	46.975	128	80.04	27	54.294	100	29.90	59	35.967	92	22.90	56	51.450	249	68.79	15
19	46.847	117	80.31	3	54.194	95	29.31	75	35.875	86	23.46	52	51.201	244	68.64	61
29	46.730	103	80.28	32	54.099	86	28.56	88	35.789	76	23.98	46	50.957	232	68.03	105
Juli 9	46.627	85	79.96	61	54.013	74	27.68	98	35.713	63	24.44	37	50.725	212	66.98	146
19	46.542	66	79.35	89	53.939	59	26.70	105	35.650	49	24.81	27	50.513	187	65.52	183
29	46.476	42	78.46	116	53.880	42	25.65	108	35.601	32	25.08	16	50.326	152	63.69	213
Aug. 8	46.434	17	77.30	143	53.838	19	24.57	106	35.569	11	25.24	1	50.174	110	61.56	236
18	46.417	13	75.87	167	53.819	6	23.51	100	35.558	13	25.25	15	50.064	62	59.20	252
28	46.430	45	74.20	190	53.825	36	22.51	87	35.571	40	25.10	34	50.002	6	56.68	257
Sept. 7	46.475	81	72.30	210	53.861	68	21.64	70	35.611	71	24.76	54	49.996	55	54.11	253
17	46.556	119	70.20	228	53.929	105	20.94	47	35.682	105	24.22	77	50.051	121	51.58	238
27	46.675	160	67.92	244	54.034	144	20.47	19	35.787	141	23.45	102	50.172	188	49.20	213
Okt. 7	46.835	203	65.48	254	54.178	184	20.28	13	35.928	179	22.43	126	50.360	256	47.07	178
17	47.038	245	62.94	261	54.362	224	20.41	47	36.107	217	21.17	150	50.616	319	45.29	134
27	47.283	286	60.33	262	54.586	261	20.88	85	36.324	254	19.67	173	50.935	378	43.95	83
Nov. 6	47.569	324	57.71	258	54.847	294	21.73	121	36.578	287	17.94	192	51.313	426	43.12	27
16	47.893	354	55.13	245	55.141	321	22.94	155	36.865	314	16.02	207	51.739	462	42.85	32
26	48.247	376	52.68	226	55.462	339	24.49	186	37.179	334	13.95	217	52.201	485	43.17	93
Dez. 6	48.623	390	50.42	201	55.801	348	26.35	212	37.513	343	11.78	220	52.686	493	44.10	150
16	49.013	391	48.41	168	56.149	346	28.47	231	37.856	344	9.58	216	53.179	483	45.60	205
26	49.404	380	46.73	131	56.495	332	30.78	243	38.200	333	7.42	206	53.662	459	47.65	252
36	49.784		45.42		56.827		33.21		38.533		5.36		54.121		50.17	
Mittl. Ort	45.439		75.67		53.348		17.75		34.771		27.91		51.204		45.66	
sec δ, tg δ	1.199		+0.661		1.032		−0.257		1.006		+0.112		1.706		−1.382	
a, *a′*	+3.2		−19.7		+3.0		−19.7		+3.1		−19.7		+2.7		−19.7	
b, *b′*	−0.04		− 0.20		+0.02		− 0.19		−0.01		− 0.18		+0.09		− 0.18	

Tag	429) Grb 1771 AR.	Diff.	429) Grb 1771 Dekl.	Diff.	433) λ Draconis AR.	Diff.	433) λ Draconis Dekl.	Diff.	434) ξ Hydrae AR.	Diff.	434) ξ Hydrae Dekl.	Diff.	436) λ Centauri AR.	Diff.	436) λ Centauri Dekl.	Diff.
1931	11h 18m		+64° 41′		11h 27m		+69° 42′		11h 29m		−31° 28′		11h 32m		−62° 37′	
Jan. 1	48.12s	62	75.72″	2	22.00s	75	27.87″	6	36.051s	348	20.27″	265	34.81s	53	56.72″	256
11	48.74	58	75.74	61	22.75	70	27.93	67	36.399	318	22.92	281	35.34	49	59.28	298
21	49.32	51	76.35	117	23.45	61	28.60	125	36.717	279	25.73	291	35.83	42	62.26	331
31	49.83	42	77.52	166	24.06	52	29.85	177	36.996	235	28.64	293	36.25	35	65.57	355
Feb. 10	50.25	33	79.18	209	24.58	42	31.62	220	37.231	187	31.57	287	36.60	27	69.12	370
20	50.58	23	81.27	241	25.00	29	33.82	254	37.418	138	34.44	276	36.87	18	72.82	377
März 2	50.81	13	83.68	262	25.29	16	36.36	275	37.556	90	37.20	258	37.05	11	76.59	373
12	50.94	3	86.30	271	25.45	4	39.11	285	37.646	46	39.78	236	37.16	3	80.32	361
21	[13] 50.97	7	89.01	270	[15] 25.49	8	41.96	282	[15] 37.692	5	42.14	212	[16] 37.19	4	83.93	343
31	50.90	16	91.71	256	25.41	18	44.78	269	37.697	30	44.26	185	37.15	11	87.36	319
Apr. 10	50.74	22	94.27	233	25.23	28	47.47	245	37.667	59	46.11	155	37.04	17	90.55	288
20	50.52	28	96.60	202	24.95	35	49.92	211	37.608	83	47.66	124	36.87	21	93.43	252
30	50.24	33	98.62	162	24.60	41	52.03	171	37.525	102	48.90	92	36.66	26	95.95	211
Mai 10	49.91	35	100.24	118	24.19	45	53.74	124	37.423	116	49.82	59	36.40	29	98.06	167
20	49.56	36	101.42	71	23.74	48	54.98	75	37.307	125	50.41	27	36.11	32	99.73	120
30	49.20	37	102.13	21	23.26	48	55.73	22	37.182	130	50.68	6	35.79	34	100.93	70
Juni 9	48.83	36	102.34	30	22.78	47	55.95	30	37.052	131	50.62	37	35.45	34	101.63	19
19	48.47	33	102.04	79	22.31	44	55.65	82	36.921	128	50.25	68	35.11	34	101.82	31
29	48.14	30	101.25	126	21.87	41	54.83	132	36.793	122	49.57	96	34.77	34	101.51	81
Juli 9	47.84	26	99.99	171	21.46	37	53.51	178	36.671	111	48.61	122	34.43	32	100.70	127
19	47.58	22	98.28	212	21.09	31	51.73	222	36.560	97	47.39	142	34.11	28	99.43	169
29	47.36	17	96.16	249	20.78	25	49.51	260	36.463	77	45.97	159	33.83	24	97.74	207
Aug. 8	47.19	11	93.67	280	20.53	18	46.91	294	36.386	53	44.38	169	33.59	19	95.67	238
18	47.08	4	90.87	308	20.35	10	43.97	321	36.333	23	42.69	174	33.40	13	93.29	259
28	47.04	2	87.79	328	20.25	2	40.76	342	36.310	11	40.95	170	33.27	6	90.70	272
Sept. 7	47.06	9	84.51	343	20.23	7	37.34	358	36.321	49	39.25	160	33.21	2	87.98	275
17	47.15	16	81.08	352	20.30	16	33.76	366	36.370	93	37.65	140	33.23	11	85.23	267
27	47.31	24	77.56	354	20.46	26	30.10	367	36.463	139	36.25	115	33.34	19	82.56	247
Okt. 7	47.55	32	74.02	348	20.72	35	26.43	360	36.602	186	35.10	81	33.53	28	80.09	216
17	47.87	39	70.54	335	21.07	44	22.83	346	36.788	232	34.29	41	33.81	37	77.93	176
27	48.26	46	67.19	313	21.51	52	19.37	323	37.020	276	33.88	1	34.18	44	76.17	127
Nov. 6	48.72	53	64.06	284	22.03	61	16.14	292	37.296	315	33.89	49	34.62	50	74.90	72
16	49.25	58	61.22	248	22.64	68	13.22	253	37.611	345	34.38	96	35.12	55	74.18	11
26	49.83	63	58.74	203	23.32	73	10.69	206	37.956	368	35.34	141	35.67	59	74.07	51
Dez. 6	50.46	65	56.71	151	24.05	77	8.63	153	38.324	377	36.75	183	36.26	60	74.58	113
16	51.11	65	55.20	95	24.82	78	7.10	94	38.701	377	38.58	220	36.86	59	75.71	172
26	51.76	64	54.25	37	25.60	76	6.16	33	39.078	364	40.78	250	37.45	57	77.43	226
36	52.40		53.88		26.36		5.83		39.442		43.28		38.02		79.69	
Mittl. Ort	46.32		90.25		19.78		43.44		36.230		32.44		35.32		76.56	
sec δ, tg δ	2.341		+2.116		2.884		+2.705		1.172		−0.612		2.176		−1.932	
a, a'	+3.6		−19.7		+3.6		−19.8		+3.0		−19.9		+2.8		−19.9	
b, b'	−0.14		−0.18		−0.18		−0.14		+0.04		−0.13		+0.13		−0.12	

Tag	437) υ Leonis AR.		437) υ Leonis Dekl.		440) 3 Draconis AR.		440) 3 Draconis Dekl.		441) χ Ursae maj. AR.		441) χ Ursae maj. Dekl.		444) β Leonis AR.		444) β Leonis Dekl.	
1931	$11^h 33^m$		−0° 26′		$11^h 38^m$		+67° 6′		$11^h 42^m$		+48° 9′		$11^h 45^m$		+14° 57′	
Jan. 1	24.989	324	32.02	216	40.26	68	81.13	16	25.621	445	30.18	82	32.639	338	24.31	182
11	25.313	299	34.18	202	40.94	64	80.97	$\overline{45}$	26.066	417	29.36	27	32.977	316	22.49	154
21	25.612	267	36.20	184	41.58	58	81.42	104	26.483	377	29.09	$\overline{27}$	33.293	285	20.95	122
31	25.879	228	38.04	161	42.16	49	82.46	157	26.860	326	29.36	77	33.578	246	19.73	87
Feb. 10	26.107	185	39.65	136	42.65	40	84.03	203	27.186	266	30.13	123	33.824	204	18.86	53
20	26.292	141	41.01	109	43.05	29	86.06	240	27.452	201	31.36	163	34.028	158	18.33	20
März 2	26.433	97	42.10	82	43.34	18	88.46	265	27.653	136	32.99	192	34.186	113	18.13	$\overline{11}$
12	26.530	57	42.92	56	43.52	7	91.11	279	27.789	72	34.91	213	34.299	70	18.24	37
21	[16] 26.587	20	43.48	33	[18] 43.59	$\overline{4}$	93.90	281	[19] 27.861	11	37.04	224	[19] 34.369	30	18.61	59
31	26.607	$\overline{12}$	43.81	12	43.55	13	96.71	271	27.872	$\overline{43}$	39.28	225	34.399	$\overline{5}$	19.20	74
Apr. 10	26.595	37	43.93	$\overline{5}$	43.42	22	99.42	250	27.829	89	41.53	215	34.394	33	19.94	85
20	26.558	59	43.88	21	43.20	29	101.92	221	27.740	127	43.68	198	34.361	56	20.79	91
30	26.499	73	43.67	33	42.91	34	104.13	183	27.613	157	45.66	174	34.305	74	21.70	91
Mai 10	26.426	84	43.34	43	42.57	38	105.96	140	27.456	177	47.40	142	34.231	87	22.61	88
20	26.342	90	42.91	49	42.19	41	107.36	91	27.279	190	48.82	107	34.144	95	23.49	81
30	26.252	92	42.42	55	41.78	41	108.27	42	27.089	194	49.89	69	34.049	99	24.30	71
Juni 9	26.160	92	41.87	59	41.37	41	108.69	$\overline{11}$	26.895	193	50.58	28	33.950	99	25.01	59
19	26.068	88	41.28	60	40.96	40	108.58	62	26.702	186	50.86	$\overline{13}$	33.851	96	25.60	46
29	25.980	82	40.68	59	40.56	37	107.96	112	26.516	173	50.73	55	33.755	90	26.06	30
Juli 9	25.898	72	40.09	57	40.19	33	106.84	159	26.343	156	50.18	95	33.665	82	26.36	14
19	25.826	60	39.52	53	39.86	29	105.25	203	26.187	134	49.23	133	33.583	70	26.50	$\overline{3}$
29	25.766	45	38.99	45	39.57	24	103.22	244	26.053	107	47.90	170	33.513	55	26.47	23
Aug. 8	25.721	26	38.54	35	39.33	18	100.78	278	25.946	76	46.20	203	33.458	37	26.24	42
18	25.695	3	38.19	22	39.15	11	98.00	308	25.870	42	44.17	233	33.421	15	25.82	63
28	25.692	$\overline{24}$	37.97	6	39.04	4	94.92	332	25.828	2	41.84	259	33.406	$\overline{12}$	25.19	85
Sept. 7	25.716	54	37.91	$\overline{14}$	39.00	$\overline{3}$	91.60	351	25.826	$\overline{41}$	39.25	282	33.418	42	24.34	107
17	25.770	88	38.05	37	39.03	12	88.09	361	25.867	89	36.43	300	33.460	76	23.27	130
27	25.858	125	38.42	62	39.15	20	84.48	366	25.956	140	33.43	313	33.536	113	21.97	153
Okt. 7	25.983	165	39.04	89	39.35	29	80.82	363	26.096	192	30.30	320	33.649	154	20.44	175
17	26.148	204	39.93	116	39.64	38	77.19	352	26.288	246	27.10	320	33.803	195	18.69	194
27	26.352	242	41.09	144	40.02	45	73.67	333	26.534	299	23.90	313	33.998	235	16.75	212
Nov. 6	26.594	277	42.53	170	40.47	53	70.34	304	26.833	348	20.77	299	34.233	272	14.63	225
16	26.871	307	44.23	191	41.00	60	67.30	269	27.181	391	17.78	277	34.505	304	12.38	232
26	27.178	328	46.14	208	41.60	65	64.61	224	27.572	424	15.01	247	34.809	329	10.06	234
Dez. 6	27.506	341	48.22	219	42.25	69	62.37	173	27.996	448	12.54	208	35.138	346	7.72	229
16	27.847	343	50.41	224	42.94	70	60.64	116	28.444	458	10.46	165	35.484	351	5.43	217
26	28.190	335	52.65	221	43.64	69	59.48	56	28.902	454	8.81	114	35.835	347	3.26	197
36	28.525		54.86		44.33		58.92		29.356		7.67		36.182		1.29	
Mittl. Ort	24.945		33.78		38.47		97.08		24.879		43.21		32.509		28.21	
sec δ, tg δ	1.000		−0.008		2.573		+2.370		1.499		+1.117		1.035		+0.267	
a, *a′*	+3.1		−19.9		+3.4		−20.0		+3.2		−20.0		+3.1		−20.0	
b, *b′*	0.00		− 0.12		−0.16		− 0.09		−0.07		− 0.08		−0.02		− 0.06	

Tag	445) β Virginis AR.	Δ	Dekl.	Δ	447) γ Ursae maj. AR.	Δ	Dekl.	Δ
1931	11h 47m		+2° 8′		11h 50m		+54° 4′	
Jan. 1	6.052	331	73.25	212	13.494	493	27.42	72
11	6.383	309	71.13	197	13.987	466	26.70	14
21	6.692	278	69.16	176	14.453	424	26.56	43
31	6.970	241	67.40	151	14.877	369	26.99	96
Feb. 10	7.211	200	65.89	124	15.246	303	27.95	145
20	7.411	156	64.65	96	15.549	232	29.40	184
März 2	7.567	113	63.69	68	15.781	159	31.24	216
12	7.680	72	63.01	42	15.940	86	33.40	237
21*)	[20] 7.752	35	62.59	18	[21] 16.026	17	35.77	247
31	7.787	3	62.41	2	16.043	47	38.24	246
Apr. 10	7.790	24	62.43	19	15.996	102	40.70	235
20	7.766	47	62.62	33	15.894	147	43.05	215
30	7.719	63	62.95	43	15.747	183	45.20	187
Mai 10	7.656	76	63.38	51	15.564	210	47.07	153
20	7.580	84	63.89	55	15.354	227	48.60	114
30	7.496	89	64.44	58	15.127	236	49.74	71
Juni 9	7.407	90	65.02	58	14.891	236	50.45	27
19	7.317	88	65.60	57	14.655	230	50.72	18
29	7.229	84	66.17	54	14.425	217	50.54	63
Juli 9	7.145	76	66.71	48	14.208	197	49.91	108
19	7.069	66	67.19	42	14.011	173	48.83	149
29	7.003	52	67.61	32	13.838	144	47.34	188
Aug. 8	6.951	35	67.93	20	13.694	109	45.46	223
18	6.916	13	68.13	6	13.585	69	43.23	255
28	6.903	12	68.19	11	13.516	25	40.68	283
Sept. 7	6.915	42	68.08	30	13.491	25	37.85	306
17	6.957	76	67.78	54	13.516	78	34.79	323
27	7.033	113	67.24	79	13.594	135	31.56	335
Okt. 7	7.146	152	66.45	104	13.729	195	28.21	341
17	7.298	193	65.41	131	13.924	255	24.80	339
27	7.491	233	64.10	156	14.179	316	21.41	329
Nov. 6	7.724	270	62.54	179	14.495	371	18.12	311
16	7.994	301	60.75	199	14.866	420	15.01	285
26	8.295	325	58.76	214	15.286	461	12.16	252
Dez. 6	8.620	341	56.62	222	15.747	489	9.64	209
16	8.961	346	54.40	224	16.236	503	7.55	161
26	9.307	340	52.16	219	16.739	501	5.94	107
36	9.647		49.97		17.240		4.87	
Mittl. Ort	6.063		72.86		12.617		42.02	
sec δ, tg δ	1.001		+0.038		1.704		+1.380	
a, a'	+3.1		−20.0		+3.2		−20.0	
b, b'	0.00		− 0.06		−0.09		− 0.04	

Tag	450) ο Virginis AR.	Δ	Dekl.	Δ	452) δ Centauri AR.	Δ	Dekl.	Δ
1931	12h 1m		+9° 6′		12h 4m		−50° 20′	
Jan. 1	41.674	337	55.34	200	45.727	447	0.79	234
11	42.011	318	53.34	178	46.174	417	3.13	270
21	42.329	289	51.56	151	46.591	375	5.83	299
31	42.618	254	50.05	121	46.966	325	8.82	320
Feb. 10	42.872	214	48.84	88	47.291	270	12.02	332
20	43.086	170	47.96	56	47.561	212	15.34	336
März 2	43.256	128	47.40	26	47.773	154	18.70	333
12	43.384	86	47.14	1	47.927	98	22.03	322
21*)	43.470	48	47.15	25	[24] 48.025	45	25.25	305
31	[23] 43.518	14	47.40	44	48.070	4	28.30	284
Apr. 10	43.532	16	47.84	58	48.066	47	31.14	257
20	43.516	39	48.42	69	48.019	86	33.71	226
30	43.477	58	49.11	74	47.933	120	35.97	192
Mai 10	43.419	73	49.85	76	47.813	148	37.89	154
20	43.346	83	50.61	75	47.665	171	39.43	113
30	43.263	89	51.36	70	47.494	189	40.56	72
Juni 9	43.174	93	52.06	64	47.305	202	41.28	28
19	43.081	94	52.70	56	47.103	210	41.56	15
29	42.987	90	53.26	45	46.893	210	41.41	57
Juli 9	42.897	85	53.71	33	46.683	205	40.84	98
19	42.812	77	54.04	19	46.478	192	39.86	136
29	42.735	64	54.23	5	46.286	172	38.50	169
Aug. 8	42.671	48	54.28	12	46.114	143	36.81	196
18	42.623	28	54.16	31	45.971	106	34.85	216
28	42.595	3	53.85	50	45.865	61	32.69	229
Sept. 7	42.592	26	53.35	72	45.804	9	30.40	233
17	42.618	59	52.63	96	45.795	50	28.07	226
27	42.677	96	51.67	119	45.845	113	25.81	210
Okt. 7	42.773	137	50.48	143	45.958	179	23.71	185
17	42.910	178	49.05	166	46.137	245	21.86	150
27	43.088	220	47.39	188	46.382	307	20.36	107
Nov. 6	43.308	258	45.51	205	46.689	363	19.29	57
16	43.566	292	43.46	220	47.052	409	18.72	4
26	43.858	319	41.26	228	47.461	444	18.68	51
Dez. 6	44.177	338	38.98	229	47.905	465	19.19	106
16	44.515	346	36.69	224	48.370	472	20.25	159
26	44.861	344	34.45	212	48.842	462	21.84	207
36	45.205		32.33		49.304		23.91	
Mittl. Ort	41.701		57.89		46.408		17.39	
sec δ, tg δ	1.013		+0.160		1.567		−1.206	
a, a'	+3.1		−20.0		+3.1		−20.0	
b, b'	−0.01		+ 0.01		+0.08		+ 0.02	

*) Bei Stern 450) und 452) lies März 22

Scheinbare Sternörter 1931

Tag	453) ε Corvi AR.		Dekl.		454) 4 H. Draconis AR.		Dekl.		456) δ Ursae maj. AR.		Dekl.		459) β Chamael. AR.		Dekl.	
1931	12h 6m		−22° 14′		12h 8m		+77° 59′		12h 12m		+57° 24′		12h 14m		−78° 55′	
Jan. 1	33.996	349	1.56	239	62.34	119	40.24	27	2.027	531	40.79	88	13.15	123	23.79	177
11	34.345	328	3.95	249	63.53	114	39.97	38	2.558	509	39.91	28	14.38	114	25.56	231
21	34.673	297	6.44	253	64.67	106	40.35	101	3.067	471	39.63	32	15.52	103	27.87	279
31	34.970	261	8.97	250	65.73	93	41.36	159	3.538	417	39.95	89	16.55	89	30.66	319
Feb. 10	35.231	220	11.47	240	66.66	78	42.95	210	3.955	354	40.84	141	17.44	74	33.85	350
20	35.451	176	13.87	226	67.44	60	45.05	251	4.309	281	42.25	186	18.18	57	37.35	373
März 2	35.627	133	16.13	208	68.04	40	47.56	280	4.590	203	44.11	221	18.75	40	41.08	386
12	35.760	91	18.21	188	68.44	21	50.36	298	4.793	125	46.32	246	19.15	22	44.94	390
22	35.851	53	20.09	164	68.65	0	53.34	303	4.918	49	48.78	260	19.37	5	48.84	386
31	[25] 35.904	19	21.73	140	[25] 68.65	18	56.37	296	[26] 4.967	22	51.38	263	[27] 19.42	11	52.70	374
Apr. 10	35.923	11	23.13	116	68.47	36	59.33	277	4.945	86	54.01	254	19.31	27	56.44	355
20	35.912	36	24.29	91	68.11	52	62.10	247	4.859	140	56.55	236	19.04	42	59.99	328
30	35.876	58	25.20	66	67.59	64	64.57	210	4.719	186	58.91	210	18.62	55	63.27	295
Mai 10	35.818	74	25.86	42	66.95	75	66.67	165	4.533	221	61.01	175	18.07	68	66.22	256
20	35.744	88	26.28	18	66.20	82	68.32	115	4.312	246	62.76	136	17.39	77	68.78	212
30	35.656	97	26.46	6	65.38	87	69.47	62	4.066	263	64.12	93	16.62	86	70.90	162
Juni 9	35.559	104	26.40	29	64.51	89	70.09	6	3.803	270	65.05	47	15.76	92	72.52	111
19	35.455	108	26.11	50	63.62	88	70.15	50	3.533	269	65.52	1	14.84	96	73.63	57
29	35.347	108	25.61	70	62.74	85	69.65	103	3.264	261	65.51	49	13.88	97	74.20	1
Juli 9	35.239	104	24.91	88	61.89	81	68.62	156	3.003	246	65.02	96	12.91	95	74.21	55
19	35.135	96	24.03	102	61.08	73	67.06	204	2.757	224	64.06	141	11.96	91	73.66	107
29	35.039	85	23.01	113	60.35	64	65.02	248	2.533	196	62.65	183	11.05	83	72.59	158
Aug. 8	34.954	67	21.88	120	59.71	54	62.54	288	2.337	161	60.82	222	10.22	72	71.01	202
18	34.887	46	20.68	122	59.17	42	59.66	321	2.176	122	58.60	257	9.50	58	68.99	240
28	34.841	18	19.46	117	58.75	29	56.45	349	2.054	75	56.03	288	8.92	42	66.59	269
Sept. 7	34.823	16	18.29	108	58.46	16	52.96	369	1.979	24	53.15	314	8.50	24	63.90	289
17	34.839	53	17.21	91	58.30	0	49.27	382	1.955	34	50.01	334	8.26	3	61.01	298
27	34.892	96	16.30	69	58.30	16	45.45	389	1.989	96	46.67	349	8.23	18	58.03	294
Okt. 7	34.988	141	15.61	41	58.46	31	41.56	386	2.085	162	43.18	356	8.41	39	55.09	280
17	35.129	186	15.20	8	58.77	47	37.70	376	2.247	229	39.62	356	8.80	60	52.29	252
27	35.315	232	15.12	29	59.24	63	33.94	357	2.476	296	36.06	348	9.40	80	49.77	214
Nov. 6	35.547	274	15.41	68	59.87	78	30.37	328	2.772	361	32.58	331	10.20	97	47.63	167
16	35.821	309	16.09	106	60.65	92	27.09	290	3.133	419	29.27	306	11.17	111	45.96	112
26	36.130	337	17.15	144	61.57	103	24.19	245	3.552	468	26.21	272	12.28	121	44.84	51
Dez. 6	36.467	355	18.59	177	62.60	112	21.74	191	4.020	505	23.49	230	13.49	127	44.33	13
16	36.822	362	20.36	206	63.72	117	19.83	132	4.525	527	21.19	180	14.76	129	44.46	77
26	37.184	358	22.42	228	64.89	120	18.51	69	5.052	534	19.39	126	16.05	127	45.23	140
36	37.542		24.70		66.09		17.82		5.586		18.13		17.32		46.63	
Mittl. Ort	34.348		9.78		59.32		58.61		1.227		57.00		15.59		45.05	
sec δ, tg δ	1.080		−0.409		4.810		+4.704		1.857		+1.565		5.208		−5.111	
a, *a′*	+3.1		−20.0		+2.8		−20.0		+3.0		−20.0		+3.5		−20.0	
b, *b′*	+0.03		+ 0.03		−0.31		+ 0.04		−0.10		+ 0.05		+0.34		+ 0.06	

Tag	460) η Virginis AR.		460) η Virginis Dekl.		462) α Crucis med. AR.		462) α Crucis med. Dekl.	
1931	12h 16m		−0° 17′		12h 22m		−62° 42′	
Jan. 1	22.298	337	0.36	218	43.84	59	43.50	197
11	22.635	319	2.54	205	44.43	55	45.47	244
21	22.954	293	4.59	187	44.98	51	47.91	284
31	23.247	261	6.46	165	45.49	45	50.75	316
Feb. 10	23.508	222	8.11	139	45.94	37	53.91	339
20	23.730	182	9.50	111	46.31	31	57.30	354
März 2	23.912	140	10.61	84	46.62	23	60.84	360
12	24.052	101	11.45	57	46.85	15	64.44	359
22	24.153	63	12.02	32	47.00	8	68.03	351
31	[27] 24.216	31	12.34	11	[29] 47.08	1	71.54	334
Apr. 10	24.247	1	12.45	9	47.09	5	74.88	312
20	24.248	23	12.36	24	47.04	11	78.00	285
30	24.225	44	12.12	36	46.93	16	80.85	251
Mai 10	24.181	60	11.76	45	46.77	22	83.36	214
20	24.121	72	11.31	52	46.55	25	85.50	172
30	24.049	81	10.79	56	46.30	28	87.22	126
Juni 9	23.968	87	10.23	58	46.02	31	88.48	79
19	23.881	91	9.65	59	45.71	33	89.27	30
29	23.790	91	9.06	57	45.38	34	89.57	19
Juli 9	23.699	88	8.49	53	45.04	34	89.38	68
19	23.611	82	7.96	48	44.70	32	88.70	114
29	23.529	73	7.48	40	44.38	30	87.56	157
Aug. 8	23.456	59	7.08	30	44.08	25	85.99	195
18	23.397	41	6.78	18	43.83	21	84.04	225
28	23.356	17	6.60	2	43.62	15	81.79	248
Sept. 7	23.339	12	6.58	17	43.47	7	79.31	262
17	23.351	45	6.75	39	43.40	0	76.69	265
27	23.396	82	7.14	62	43.40	10	74.04	258
Okt. 7	23.478	123	7.76	88	43.50	19	71.46	239
17	23.601	165	8.64	115	43.69	28	69.07	210
27	23.766	208	9.79	142	43.97	37	66.97	171
Nov. 6	23.974	248	11.21	166	44.34	45	65.26	123
16	24.222	284	12.87	189	44.79	51	64.03	70
26	24.506	312	14.76	206	45.30	57	63.33	11
Dez. 6	24.818	333	16.82	218	45.87	60	63.22	48
16	25.151	342	19.00	223	46.47	61	63.70	108
26	25.493	343	21.23	222	47.08	61	64.78	164
36	25.836		23.45		47.69		66.42	
Mittl. Ort	22.503		0.56		45.05		62.25	
sec δ, tg δ	1.000		−0.005		2.182		−1.939	
a, a′	+3.1		−20.0		+3.3		−19.9	
b, b′	0.00		+ 0.07		+0.13		+ 0.10	

Tag	466) 20 Comae AR.		466) 20 Comae Dekl.		465) δ Corvi AR.		465) δ Corvi Dekl.	
1931	12h 26m		+21° 16′		12h 26m		−16° 7′	
Jan. 1	15.364	356	33.07	188	17.053	347	47.86	228
11	15.720	340	31.19	153	17.400	329	50.14	233
21	16.060	317	29.66	115	17.729	304	52.47	232
31	16.377	284	28.51	75	18.033	271	54.79	224
Feb. 10	16.661	245	27.76	33	18.304	234	57.03	211
20	16.906	202	27.43	5	18.538	193	59.14	194
März 2	17.108	158	27.48	41	18.731	152	61.08	173
12	17.266	114	27.89	72	18.883	112	62.81	152
22	17.380	73	28.61	96	18.995	75	64.33	128
31	[30] 17.453	34	29.57	115	[30] 19.070	41	65.61	106
Apr. 10	17.487	1	30.72	126	19.111	11	66.67	84
20	17.488	27	31.98	131	19.122	15	67.51	62
30	17.461	51	33.29	130	19.107	37	68.13	41
Mai 10	17.410	70	34.59	123	19.070	55	68.54	21
20	17.340	85	35.82	111	19.015	71	68.75	2
30	17.255	95	36.93	96	18.944	82	68.77	15
Juni 9	17.160	103	37.89	78	18.862	92	68.62	32
19	17.057	107	38.67	58	18.770	97	68.30	47
29	16.950	107	39.25	35	18.673	101	67.83	61
Juli 9	16.843	105	39.60	12	18.572	101	67.22	72
19	16.738	98	39.72	13	18.471	97	66.50	81
29	16.640	88	39.59	38	18.374	88	65.69	88
Aug. 8	16.552	73	39.21	63	18.286	75	64.81	90
18	16.479	55	38.58	90	18.211	56	63.91	89
28	16.424	31	37.68	115	18.155	31	63.02	83
Sept. 7	16.393	2	36.53	141	18.124	2	62.19	71
17	16.391	32	35.12	165	18.122	34	61.48	55
27	16.423	70	33.47	189	18.156	74	60.93	34
Okt. 7	16.493	112	31.58	211	18.230	117	60.59	8
17	16.605	157	29.47	230	18.347	163	60.51	22
27	16.762	201	27.17	246	18.510	208	60.73	55
Nov. 6	16.963	244	24.71	256	18.718	252	61.28	89
16	17.207	283	22.15	260	18.970	289	62.17	123
26	17.490	317	19.55	258	19.259	319	63.40	154
Dez. 6	17.807	341	16.97	249	19.578	341	64.94	182
16	18.148	355	14.48	231	19.919	352	66.76	205
26	18.503	359	12.17	206	20.271	353	68.81	221
36	18.862		10.11		20.624		71.02	
Mittl. Ort	15.405		40.63		17.471		53.33	
sec δ, tg δ	1.073		+0.390		1.041		−0.289	
a, a′	+3.0		−19.9		+3.1		−19.9	
b, b′	−0.03		+ 0.11		+0.02		+ 0.11	

Tag	470) 8 Canum ven.				472) κ Draconis				471) β Corvi				473) 24 Comae sq.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	12h 30m		+41° 43′		12h 30m		+70° 9′		12h 30m		−23° 0′		12h 31m		+18° 44′	
Jan. 1	28.456	414	41.85	148	34.20	77	47.35	78	44.959	357	47.78	226	40.119	351	77.07	195
11	28.870	400	40.37	97	34.97	75	46.57	13	45.316	341	50.04	239	40.470	339	75.12	163
21	29.270	373	39.40	42	35.72	71	46.44	51	45.657	315	52.43	245	40.809	315	73.49	126
31	29.643	337	38.98	11	36.43	64	46.95	113	45.972	282	54.88	244	41.124	284	72.23	87
Feb. 10	29.980	291	39.09	62	37.07	55	48.08	168	46.254	243	57.32	237	41.408	246	71.36	48
20	30.271	239	39.71	108	37.62	44	49.76	215	46.497	202	59.69	225	41.654	205	70.88	10
März 2	30.510	185	40.79	148	38.06	33	51.91	253	46.699	160	61.94	208	41.859	161	70.78	26
12	30.695	129	42.27	179	38.39	21	54.44	278	46.859	120	64.02	190	42.020	119	71.04	57
22	30.824	75	44.06	202	38.60	9	57.22	292	46.979	81	65.92	169	42.139	78	71.61	83
31	(31) 30.899	26	46.08	214	(31) 38.69	3	60.14	293	(31) 47.060	47	67.61	146	(31) 42.217	41	72.44	101
Apr. 10	30.925	19	48.22	217	38.66	14	63.07	284	47.107	15	69.07	123	42.258	8	73.45	115
20	30.906	58	50.39	211	38.52	24	65.91	263	47.122	13	70.30	100	42.266	20	74.60	121
30	30.848	91	52.50	197	38.28	32	68.54	232	47.109	36	71.30	76	42.246	44	75.81	122
Mai 10	30.757	117	54.47	176	37.96	39	70.86	195	47.073	56	72.06	53	42.202	63	77.03	118
20	30.640	138	56.23	148	37.57	44	72.81	150	47.017	73	72.59	29	42.139	79	78.21	108
30	30.502	152	57.71	117	37.13	48	74.31	101	46.944	87	72.88	6	42.060	90	79.29	95
Juni 9	30.350	162	58.88	82	36.65	49	75.32	49	46.857	98	72.94	15	41.970	98	80.24	80
19	30.188	166	59.70	44	36.16	51	75.81	4	46.759	106	72.79	37	41.872	103	81.04	61
29	30.022	166	60.14	5	35.65	50	75.77	57	46.653	110	72.42	57	41.769	104	81.65	41
Juli 9	29.856	160	60.19	34	35.15	48	75.20	109	46.543	110	71.85	75	41.665	103	82.06	20
19	29.696	151	59.85	73	34.67	45	74.11	159	46.433	108	71.10	91	41.562	98	82.26	3
29	29.545	137	59.12	112	34.22	41	72.52	206	46.325	99	70.19	103	41.464	89	82.23	26
Aug. 8	29.408	117	58.00	148	33.81	35	70.46	248	46.226	85	69.16	112	41.375	76	81.97	51
18	29.291	92	56.52	182	33.46	29	67.98	286	46.141	66	68.04	116	41.299	58	81.46	76
28	29.199	62	54.70	214	33.17	22	65.12	319	46.075	40	66.88	114	41.241	35	80.70	100
Sept. 7	29.137	26	52.56	244	32.95	14	61.93	345	46.035	9	65.74	108	41.206	7	79.70	126
17	29.111	14	50.12	269	32.81	4	58.48	366	46.026	28	64.66	94	41.199	27	78.44	150
27	29.125	60	47.43	290	32.77	5	54.82	379	46.054	71	63.72	74	41.226	64	76.94	175
Okt. 7	29.185	110	44.53	307	32.82	15	51.03	384	46.125	116	62.98	50	41.290	106	75.19	198
17	29.295	163	41.46	317	32.97	25	47.19	382	46.241	165	62.48	19	41.396	150	73.21	217
27	29.458	215	38.29	322	33.22	36	43.37	371	46.406	212	62.29	15	41.546	195	71.04	235
Nov. 6	29.673	267	35.07	318	33.58	46	39.66	349	46.618	257	62.44	53	41.741	238	68.69	248
16	29.940	314	31.89	306	34.04	55	36.17	320	46.875	296	62.97	90	41.979	277	66.21	254
26	30.254	356	28.83	287	34.59	63	32.97	281	47.171	328	63.87	127	42.256	311	63.67	255
Dez. 6	30.610	387	25.96	258	35.22	70	30.16	233	47.499	352	65.14	161	42.567	335	61.12	247
16	30.997	407	23.38	222	35.92	75	27.83	179	47.851	363	66.75	191	42.902	351	58.65	234
26	31.404	414	21.16	178	36.67	77	26.04	118	48.214	364	68.66	214	43.253	355	56.31	211
36	31.818		19.38		37.44		24.86		48.578		70.80		43.608		54.20	
Mittl. Ort	28.237		55.49		32.89		66.05		45.477		55.46		40.222		84.01	
sec δ, tg δ	1.340		+0.892		2.948		+2.773		1.087		−0.425		1.056		+0.340	
a, *a′*	+2.9		−19.9		+2.6		−19.9		+3.1		−19.9		+3.0		−19.9	
b, *b′*	−0.06		+ 0.13		−0.18		+ 0.13		+0.03		+ 0.13		−0.02		+ 0.14	

Tag	474) α Muscae AR.		474) α Muscae Dekl.		476) γ Centauri AR.		476) γ Centauri Dekl.		478) 76 Ursae maj. AR.		478) 76 Ursae maj. Dekl.		481) β Crucis AR.		481) β Crucis Dekl.	
1931	12h 33m		−68° 45′		12h 37m		−48° 34′		12h 38m		+63° 4′		12h 43m		−59° 18′	
Jan. 1	1.29	73	1.28	172	41.092	453	36.97	200	34.26	61	71.81	107	39.157	556	25.49	176
11	2.02	69	3.00	224	41.545	432	38.97	238	34.87	59	70.74	44	39.713	532	27.25	223
21	2.71	63	5.24	268	41.977	399	41.35	269	35.46	56	70.30	20	40.245	494	29.48	262
31	3.34	56	7.92	306	42.376	358	44.04	292	36.02	51	70.50	82	40.739	444	32.10	295
Feb. 10	3.90	48	10.98	335	42.734	309	46.96	308	36.53	45	71.32	138	41.183	386	35.05	319
20	4.38	40	14.33	355	43.043	258	50.04	315	36.98	36	72.70	187	41.569	322	38.24	335
März 2	4.78	30	17.88	367	43.301	205	53.19	315	37.34	28	74.57	228	41.891	257	41.59	343
12	5.08	21	21.55	370	43.506	151	56.34	309	37.62	19	76.85	258	42.148	190	45.02	343
22	5.29	11	25.25	366	43.657	101	59.43	298	37.81	10	79.43	276	42.338	125	48.45	337
31*)	5.40	3	28.91	354	43.758	53	62.41	280	37.91	1	82.19	282	42.463	64	51.82	324
April 10	5.43	5	32.45	335	43.811	8	65.21	258	37.92	7	85.01	277	42.527	5	55.06	305
20	5.38	13	35.80	311	43.819	32	67.79	232	37.85	14	87.78	262	42.532	50	58.11	280
30	5.25	20	38.91	279	43.787	68	70.11	202	37.71	21	90.40	236	42.482	100	60.91	251
Mai 10	5.05	27	41.70	242	43.719	100	72.13	169	37.50	25	92.76	204	42.382	146	63.42	216
20	4.78	33	44.12	201	43.619	129	73.82	134	37.25	29	94.80	163	42.236	186	65.58	178
30	4.45	37	46.13	156	43.490	154	75.16	95	36.96	33	96.43	118	42.050	222	67.36	137
Juni 9	4.08	41	47.69	107	43.336	173	76.11	55	36.63	34	97.61	71	41.828	250	68.73	92
19	3.67	44	48.76	57	43.163	187	76.66	15	36.29	36	98.32	20	41.578	273	69.65	46
29	3.23	46	49.33	4	42.976	197	76.81	26	35.93	35	98.52	32	41.305	286	70.11	1
Juli 9	2.77	45	49.37	47	42.779	200	76.55	65	35.58	34	98.20	81	41.019	292	70.10	47
19	2.32	44	48.90	97	42.579	196	75.90	103	35.24	32	97.39	130	40.727	287	69.63	93
29	1.88	41	47.93	144	42.383	184	74.87	137	34.92	29	96.09	177	40.440	272	68.70	135
Aug. 8	1.47	37	46.49	186	42.199	163	73.50	167	34.63	26	94.32	220	40.168	244	67.35	172
18	1.10	31	44.63	222	42.036	135	71.83	191	34.37	21	92.12	259	39.924	206	65.63	205
28	0.79	22	42.41	251	41.901	96	69.92	207	34.16	16	89.53	294	39.718	155	63.58	229
Sept. 7	0.57	14	39.90	269	41.805	49	67.85	216	34.00	11	86.59	323	39.563	94	61.29	245
17	0.43	3	37.21	278	41.756	5	65.69	215	33.89	4	83.36	346	39.469	22	58.84	251
27	0.40	8	34.43	275	41.761	65	63.54	206	33.85	4	79.90	364	39.447	56	56.33	247
Okt. 7	0.48	19	31.68	261	41.826	130	61.48	186	33.89	11	76.26	373	39.503	140	53.86	233
17	0.67	31	29.07	236	41.956	197	59.62	158	34.00	19	72.53	376	39.643	226	51.53	207
27	0.98	43	26.71	200	42.153	261	58.04	121	34.19	28	68.77	370	39.869	308	49.46	172
Nov. 6	1.41	53	24.71	155	42.414	322	56.83	78	34.47	35	65.07	354	40.177	385	47.74	129
16	1.94	61	23.16	103	42.736	374	56.05	29	34.82	43	61.53	329	40.562	452	46.45	79
26	2.55	68	22.13	44	43.110	416	55.76	23	35.25	50	58.24	295	41.014	506	45.66	25
Dez. 6	3.23	72	21.69	16	43.526	446	55.99	75	35.75	54	55.29	253	41.520	544	45.41	33
16	3.95	75	21.85	78	43.972	461	56.74	126	36.29	58	52.76	203	42.064	564	45.74	89
26	4.70	74	22.63	137	44.433	462	58.00	174	36.87	60	50.73	144	42.628	566	46.63	144
36	5.44		24.00		44.895		59.74		37.47		49.29		43.194		48.07	
Mittl. Ort	2.98		20.70		42.052		52.08		33.52		89.96		40.498		42.84	
sec δ, tg δ	2.760		−2.572		1.511		−1.134		2.210		+1.970		1.959		−1.685	
a, a′	+3.6		−19.8		+3.3		−19.8		+2.6		−19.8		+3.5		−19.7	
b, b′	+0.17		+ 0.14		+0.07		+ 0.16		−0.13		+ 0.17		+0.11		+ 0.19	

*) Bei Stern 476), 478) und 481) lies April 1

Scheinbare Sternörter 1931

Tag	482) *n* Centauri				483) ε Ursae maj.				484) δ Virginis				486) 8 Draconis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$12^h\ 49^m$		$-39°\ 48'$		$12^h\ 50^m$		$+56°\ 19'$		$12^h\ 52^m$		$+3°\ 45'$		$12^h\ 52^m$		$+65°\ 48'$	
Jan. 1	$35^s.511$	411	$2''.56$	200	$60^s.328$	516	$44''.98$	138	$7^s.236$	340	$76''.57$	216	$44^s.76$	66	$25''.98$	118
11	35.922	395	4.56	230	60.844	507	43.60	78	7.576	330	74.41	200	45.42	64	24.80	55
21	36.317	369	6.86	254	61.351	483	42.82	16	7.906	311	72.41	178	46.06	62	24.25	10
31	36.686	334	9.40	271	61.834	443	42.66	45	8.217	284	70.63	153	46.68	57	24.35	74
Feb. 10	37.020	293	12.11	280	62.277	390	43.11	103	8.501	250	69.10	123	47.25	50	25.09	133
20	37.313	249	14.91	283	62.667	328	44.14	155	8.751	213	67.87	92	47.75	42	26.42	185
März 2	37.562	202	17.74	278	62.995	259	45.69	199	8.964	174	66.95	62	48.17	33	28.27	227
12	37.764	157	20.52	269	63.254	187	47.68	232	9.138	135	66.33	32	48.50	23	30.54	260
22	37.921	113	23.21	256	63.441	113	50.00	255	9.273	99	66.01	6	48.73	13	33.14	281
Apr. 1	38.034	71	25.77	238	63.554	44	52.55	267	9.372	64	65.95	16	48.86	4	35.95	290
10	38.105	33	28.15	217	63.598	21	55.22	268	9.436	34	66.11	35	48.90	6	38.85	287
20	38.138	2	30.32	192	63.577	80	57.90	258	9.470	7	66.46	49	48.84	14	41.72	273
30	38.136	33	32.24	166	63.497	132	60.48	239	9.477	17	66.95	60	48.70	21	44.45	249
Mai 10	38.103	62	33.90	136	63.365	174	62.87	211	9.460	38	67.55	67	48.49	27	46.94	217
20	38.041	87	35.26	106	63.191	209	64.98	176	9.422	54	68.22	70	48.22	32	49.11	177
30	37.954	109	36.32	73	62.982	236	66.74	137	9.368	69	68.92	70	47.90	36	50.88	133
Juni 9	37.845	127	37.05	40	62.746	254	68.11	92	9.299	80	69.62	67	47.54	39	52.21	84
19	37.718	141	37.45	7	62.492	265	69.03	46	9.219	89	70.29	63	47.15	40	53.05	33
29	37.577	152	37.52	28	62.227	269	69.49	2	9.130	95	70.92	57	46.75	41	53.38	19
Juli 9	37.425	157	37.24	61	61.958	265	69.47	50	9.035	98	71.49	49	46.34	40	53.19	71
19	37.268	156	36.63	91	61.693	254	68.97	98	8.937	98	71.98	38	45.94	38	52.48	122
29	37.112	150	35.72	119	61.439	237	67.99	144	8.839	93	72.36	27	45.56	36	51.26	169
Aug. 8	36.962	135	34.53	143	61.202	212	66.55	187	8.746	83	72.63	14	45.20	32	49.57	215
18	36.827	113	33.10	161	60.990	180	64.68	227	8.663	69	72.77	3	44.88	28	47.42	256
28	36.714	83	31.49	174	60.810	142	62.41	263	8.594	49	72.74	20	44.60	22	44.86	292
Sept. 7	36.631	46	29.75	179	60.668	95	59.78	295	8.545	24	72.54	40	44.38	16	41.94	324
17	36.585	1	27.96	176	60.573	42	56.83	322	8.521	8	72.14	62	44.22	8	38.70	349
27	36.584	51	26.20	165	60.531	16	53.61	343	8.529	45	71.52	85	44.14	1	35.21	368
Okt. 7	36.635	107	24.55	146	60.547	81	50.18	358	8.574	85	70.67	110	44.13	7	31.53	379
17	36.742	165	23.09	118	60.628	150	46.60	366	8.659	129	69.57	135	44.20	17	27.74	383
27	36.907	222	21.91	84	60.778	219	42.94	364	8.788	174	68.22	160	44.37	26	23.91	378
Nov. 6	37.129	278	21.07	44	60.997	288	39.30	356	8.962	218	66.62	182	44.63	34	20.13	364
16	37.407	326	20.63	0	61.285	352	35.74	337	9.180	258	64.80	201	44.97	43	16.49	341
26	37.733	366	20.63	47	61.637	411	32.37	309	9.438	292	62.79	216	45.40	51	13.08	307
Dez. 6	38.099	395	21.10	92	62.048	457	29.28	272	9.730	319	60.63	225	45.91	57	10.01	265
16	38.494	413	22.02	137	62.505	491	26.56	226	10.049	336	58.38	228	46.48	62	7.36	215
26	38.907	417	23.39	177	62.996	511	24.30	174	10.385	342	56.10	222	47.10	64	5.21	157
36	39.324		25.16		63.507		22.56		10.727		53.88		47.74		3.64	
Mittl. Ort	36.397		14.83		59.971		62.48		7.613		79.11		44.08		44.96	
sec δ, tg δ	1.302		−0.833		1.804		+1.501		1.002		+0.066		2.441		+2.226	
a, *a'*	+3.3		−19.6		+2.6		−19.6		+3.1		−19.5		+2.4		−19.5	
b, *b'*	+0.05		+ 0.21		−0.10		+ 0.22		0.00		+ 0.23		−0.14		+ 0.23	

Tag	485) 12 Can. ven. sq. AR.		Dekl.		488) ε Virginis AR.		Dekl.		490) ϑ Virginis AR.		Dekl.		492) 43 Comae AR.		Dekl.	
1931	12h 52m		+38° 40′		12h 58m		+11° 19′		13h 6m		−5° 10′		13h 8m		+28° 13′	
Jan. 1	48.205	400	72.64	172	44.184	344	41.25	213	21.962	343	15.90	216	39.078	366	27.72	200
11	48.605	392	70.92	126	44.528	336	39.12	189	22.305	335	18.06	211	39.444	361	25.72	160
21	48.997	372	69.66	74	44.864	318	37.23	159	22.640	317	20.17	199	39.805	344	24.12	115
31	49.369	341	68.92	20	45.182	291	35.64	127	22.957	292	22.16	182	40.149	319	22.97	68
Feb. 10	49.710	301	68.72	33	45.473	258	34.37	90	23.249	260	23.98	160	40.468	285	22.29	20
20	50.011	254	69.05	81	45.731	222	33.47	55	23.509	225	25.58	136	40.753	246	22.09	27
März 2	50.265	205	69.86	124	45.953	182	32.92	20	23.734	188	26.94	110	40.999	203	22.36	68
12	50.470	154	71.10	158	46.135	143	32.72	11	23.922	151	28.04	84	41.202	160	23.04	106
22	50.624	103	72.68	186	46.278	105	32.83	39	24.073	116	28.88	59	41.362	116	24.10	135
Apr. 1	50.727	56	74.54	204	46.383	70	33.22	62	24.189	82	29.47	37	41.478	76	25.45	158
10	50.783	12	76.58	212	46.453	38	33.84	80	24.271	51	29.84	16	41.554	37	27.03	172
20	50.795	26	78.70	211	46.491	9	34.64	91	24.322	23	30.00	1	41.591	3	28.75	178
30	50.769	61	80.81	202	46.500	16	35.55	98	24.345	1	29.99	15	41.594	26	30.53	176
Mai 10	50.708	89	82.83	185	46.484	37	36.53	100	24.344	22	29.84	28	41.568	53	32.29	169
20	50.619	112	84.68	162	46.447	55	37.53	98	24.322	42	29.56	38	41.515	75	33.98	154
30	50.507	130	86.30	134	46.392	71	38.51	91	24.280	59	29.18	44	41.440	93	35.52	135
Juni 9	50.377	143	87.64	102	46.321	83	39.42	83	24.221	72	28.74	50	41.347	108	36.87	111
19	50.234	153	88.66	66	46.238	93	40.25	71	24.149	84	28.24	54	41.239	120	37.98	85
29	50.081	157	89.32	30	46.145	99	40.96	57	24.065	93	27.70	55	41.119	127	38.83	56
Juli 9	49.924	158	89.62	8	46.046	103	41.53	41	23.972	99	27.15	55	40.992	132	39.39	25
19	49.766	152	89.54	47	45.943	103	41.94	24	23.873	101	26.60	54	40.860	131	39.64	7
29	49.614	143	89.07	85	45.840	98	42.18	6	23.772	98	26.06	50	40.729	127	39.57	38
Aug. 8	49.471	129	88.22	122	45.742	90	42.24	14	23.674	92	25.56	44	40.602	118	39.19	71
18	49.342	109	87.00	158	45.652	76	42.10	35	23.582	79	25.12	36	40.484	103	38.48	103
28	49.233	82	85.42	191	45.576	57	41.75	57	23.503	61	24.76	24	40.381	82	37.45	134
Sept. 7	49.151	51	83.51	223	45.519	31	41.18	81	23.442	35	24.52	9	40.299	55	36.11	164
17	49.100	13	81.28	251	45.488	0	40.37	105	23.407	4	24.43	10	40.244	22	34.47	193
27	49.087	31	78.77	275	45.488	36	39.32	130	23.403	32	24.53	30	40.222	16	32.54	220
Okt. 7	49.118	79	76.02	295	45.524	77	38.02	154	23.435	74	24.83	54	40.238	60	30.34	243
17	49.197	131	73.07	310	45.601	122	36.48	178	23.509	119	25.37	80	40.298	107	27.91	263
27	49.328	183	69.97	319	45.723	167	34.70	199	23.628	166	26.17	108	40.405	157	25.28	278
Nov. 6	49.511	235	66.78	320	45.890	211	32.71	218	23.794	210	27.25	134	40.562	205	22.50	288
16	49.746	284	63.58	314	46.101	253	30.53	232	24.004	252	28.59	159	40.767	252	19.62	291
26	50.030	328	60.44	299	46.354	289	28.21	240	24.256	288	30.18	181	41.019	293	16.71	286
Dez. 6	50.358	362	57.45	275	46.643	317	25.81	242	24.544	316	31.99	198	41.312	326	13.85	273
16	50.720	386	54.70	244	46.960	336	23.39	237	24.860	335	33.97	211	41.638	350	11.12	252
26	51.106	398	52.26	203	47.296	344	21.02	224	25.195	345	36.08	216	41.988	363	8.60	222
36	51.504		50.23		47.640		18.78		25.540		38.24		42.351		6.38	
Mittl. Ort	48.204		86.33		44.527		46.65		22.511		16.02		39.316		38.92	
sec δ, tg δ	1.281		+0.801		1.020		+0.200		1.004		−0.090		1.135		+0.537	
a, *a′*	+2.8		−19.5		+3.0		−19.4		+3.1		−19.2		+2.9		−19.2	
b, *b′*	−0.05		+ 0.23		−0.01		+ 0.25		+0.01		+ 0.29		−0.03		+ 0.30	

Tag	495) γ Hydrae AR.		Dekl.		496) ι Centauri AR.		Dekl.		497) ζ Ursae maj. pr. AR.		Dekl.		498) α Virginis AR.		Dekl.	
1931	13h 15m		−22° 48′		13h 16m		−36° 20′		13h 21m		+55° 16′		13h 21m		−10° 48′	
Jan. 1	9.168	364	23.30	200	41.582	401	45.95	179	9.083	495	48.83	175	32.600	347	4.67	209
11	9.532	356	25.30	214	41.983	392	47.74	208	9.578	497	47.08	116	32.947	341	6.76	211
21	9.888	338	27.44	222	42.375	372	49.82	230	10.075	483	45.92	54	33.288	326	8.87	205
31	10.226	313	29.66	223	42.747	344	52.12	245	10.558	453	45.38	10	33.614	302	10.92	194
Feb. 10	10.539	280	31.89	219	43.091	309	54.57	253	11.011	410	45.48	70	33.916	273	12.86	178
20	10.819	245	34.08	209	43.400	270	57.10	256	11.421	357	46.18	126	34.189	239	14.64	159
März 2	11.064	207	36.17	196	43.670	229	59.66	253	11.778	295	47.44	176	34.428	204	16.23	136
12	11.271	169	38.13	180	43.899	186	62.19	245	12.073	228	49.20	216	34.632	168	17.59	114
22	11.440	132	39.93	161	44.085	146	64.64	232	12.301	160	51.36	246	34.800	132	18.73	92
Apr. 1	11.572	98	41.54	142	44.231	106	66.96	217	12.461	93	53.82	265	34.932	100	19.65	69
11	11.670	65	42.96	122	44.337	69	69.13	199	12.554	29	56.47	273	35.032	68	20.34	49
20	^{11}11.735	35	44.18	101	^{11}44.406	34	71.12	178	^{13}12.583	32	59.20	270	^{13}35.100	40	20.83	30
30	11.770	7	45.19	81	44.440	3	72.90	155	12.551	86	61.90	256	35.140	14	21.13	14
Mai 10	11.777	17	46.00	61	44.443	27	74.45	130	12.465	133	64.46	235	35.154	10	21.27	0
20	11.760	39	46.61	41	44.416	55	75.75	104	12.332	174	66.81	205	35.144	31	21.27	14
30	11.721	60	47.02	21	44.361	79	76.79	76	12.158	207	68.86	168	35.113	49	21.13	24
Juni 9	11.661	77	47.23	2	44.282	101	77.55	47	11.951	233	70.54	128	35.064	67	20.89	34
19	11.584	93	47.25	17	44.181	120	78.02	18	11.718	253	71.82	82	34.997	81	20.55	42
29	11.491	106	47.08	35	44.061	135	78.20	12	11.465	265	72.64	35	34.916	93	20.13	48
Juli 9	11.385	113	46.73	53	43.926	145	78.08	41	11.200	269	72.99	13	34.823	102	19.65	54
19	11.272	118	46.20	67	43.781	150	77.67	69	10.931	268	72.86	62	34.721	107	19.11	58
29	11.154	118	45.53	81	43.631	149	76.98	95	10.663	258	72.24	109	34.614	107	18.53	59
Aug. 8	11.036	111	44.72	91	43.482	141	76.03	117	10.405	242	71.15	154	34.507	102	17.94	59
18	10.925	98	43.81	97	43.341	126	74.86	135	10.163	217	69.61	198	34.405	91	17.35	54
28	10.827	77	42.84	100	43.215	102	73.51	148	9.946	184	67.63	238	34.314	74	16.81	48
Sept. 7	10.750	51	41.84	96	43.113	69	72.03	155	9.762	144	65.25	274	34.240	49	16.33	37
17	10.699	16	40.88	88	43.044	28	70.48	154	9.618	96	62.51	306	34.191	19	15.96	22
27	10.683	25	40.00	74	43.016	18	68.94	146	9.522	40	59.45	332	34.172	18	15.74	4
Okt. 7	10.708	70	39.26	54	43.034	72	67.48	130	9.482	23	56.13	352	34.190	60	15.70	18
17	10.778	120	38.72	29	43.106	128	66.18	108	9.505	89	52.61	365	34.250	107	15.88	43
27	10.898	170	38.43	1	43.234	186	65.10	78	9.594	160	48.96	371	34.357	154	16.31	71
Nov. 6	11.068	220	38.44	34	43.420	241	64.32	42	9.754	230	45.25	367	34.511	201	17.02	99
16	11.288	265	38.78	67	43.661	292	63.90	2	9.984	299	41.58	355	34.712	245	18.01	127
26	11.553	304	39.45	102	43.953	336	63.88	39	10.283	361	38.03	332	34.957	283	19.28	153
Dez. 6	11.857	334	40.47	135	44.289	370	64.27	81	10.644	415	34.71	300	35.240	314	20.81	175
16	12.191	356	41.82	163	44.659	392	65.08	121	11.059	456	31.71	259	35.554	335	22.56	193
26	12.547	365	43.45	187	45.051	402	66.29	158	11.515	484	29.12	210	35.889	346	24.49	204
36	12.912		45.32		45.453		67.87		11.999		27.02		36.235		26.53	
Mittl. Ort	9.969		29.18		42.605		56.04		9.068		66.95		33.297		6.18	
sec δ, tg δ	1.085		−0.421		1.242		−0.736		1.756		+1.443		1.018		−0.191	
a, *a*′	+3.3		−19.0		+3.4		−18.9		+2.4		−18.8		+3.2		−18.8	
b, *b*′	+0.03		+0.32		+0.05		+0.33		−0.09		+0.35		+0.01		+0.35	

Tag	499) Grb 2001 AR.		499) Dekl.		500) 69 H. Urs. maj. AR.		500) Dekl.		501) ζ Virginis AR.		501) Dekl.		502) 17 H. Can. ven. AR.		502) Dekl.	
1931	13h 24m		+72° 44′		13h 25m		+60° 17′		13h 31m		−0° 14′		13h 31m		+37° 31′	
Jan. 1	22.86	83	37.55	145	55.39	55	47.33	172	9.888	339	40.12	215	42.743	388	52.86	210
11	23.69	85	36.10	80	55.94	55	45.61	110	10.227	337	42.27	205	43.131	390	50.76	163
21	24.54	83	35.30	12	56.49	54	44.51	46	10.564	323	44.32	188	43.521	378	49.13	111
31	25.37	79	35.18	54	57.03	51	44.05	19	10.887	302	46.20	166	43.899	356	48.02	55
Feb. 10	26.16	71	35.72	117	57.54	46	44.24	81	11.189	275	47.86	140	44.255	325	47.47	1
20	26.87	62	36.89	174	58.00	40	45.05	139	11.464	243	49.26	112	44.580	286	47.46	51
März 2	27.49	51	38.63	222	58.40	34	46.44	189	11.707	209	50.38	83	44.866	243	47.97	100
12	28.00	38	40.85	260	58.74	26	48.33	230	11.916	173	51.21	55	45.109	196	48.97	141
22	28.38	25	43.45	286	59.00	18	50.63	259	12.089	138	51.76	28	45.305	149	50.38	175
Apr. 1	28.63	12	46.31	301	59.18	10	53.22	279	12.227	105	52.04	4	45.454	103	52.13	199
11	28.75	2	49.32	304	59.28	3	56.01	285	12.332	74	52.08	17	45.557	59	54.12	215
20	[13] 28.73	14	52.36	293	[14] 59.31	4	58.86	282	[15] 12.406	45	51.91	33	[15] 45.616	18	56.27	221
30	28.59	25	55.29	274	59.27	11	61.68	267	12.451	19	51.58	45	45.634	18	58.48	218
Mai 10	28.34	36	58.03	244	59.16	17	64.35	243	12.470	5	51.13	55	45.616	52	60.66	206
20	27.98	44	60.47	207	58.99	22	66.78	212	12.465	26	50.58	62	45.564	80	62.72	189
30	27.54	50	62.54	163	58.77	25	68.90	173	12.439	46	49.96	64	45.484	105	64.61	164
Juni 9	27.04	56	64.17	114	58.52	28	70.63	130	12.393	63	49.32	64	45.379	125	66.25	135
19	26.48	61	65.31	62	58.24	31	71.93	83	12.330	78	48.68	63	45.254	142	67.60	102
29	25.87	62	65.93	9	57.93	33	72.76	33	12.252	90	48.05	60	45.112	155	68.62	65
Juli 9	25.25	62	66.02	45	57.60	32	73.09	17	12.162	100	47.45	54	44.957	162	69.27	28
19	24.63	62	65.57	98	57.28	33	72.92	67	12.062	106	46.91	48	44.795	166	69.55	11
29	24.01	59	64.59	149	56.95	32	72.25	117	11.956	108	46.43	39	44.629	164	69.44	51
Aug. 8	23.42	56	63.10	198	56.63	30	71.08	164	11.848	104	46.04	28	44.465	156	68.93	89
18	22.86	50	61.12	243	56.33	27	69.44	208	11.744	95	45.76	15	44.309	142	68.04	128
28	22.36	43	58.69	284	56.06	23	67.36	250	11.649	80	45.61	1	44.167	123	66.76	165
Sept. 7	21.93	35	55.85	318	55.83	19	64.86	287	11.569	57	45.60	17	44.044	95	65.11	199
17	21.58	26	52.67	348	55.64	13	61.99	318	11.512	28	45.77	36	43.949	61	63.12	232
27	21.32	16	49.19	371	55.51	7	58.81	344	11.484	7	46.13	58	43.888	20	60.80	260
Okt. 7	21.16	5	45.48	386	55.44	0	55.37	364	11.491	47	46.71	81	43.868	26	58.20	286
17	21.11	8	41.62	393	55.44	8	51.73	376	11.538	92	47.52	106	43.894	78	55.34	306
27	21.19	20	37.69	391	55.52	16	47.97	381	11.630	138	48.58	132	43.972	132	52.28	320
Nov. 6	21.39	33	33.78	381	55.68	24	44.16	375	11.768	185	49.90	155	44.104	187	49.08	327
16	21.72	45	29.97	360	55.92	31	40.41	361	11.953	229	51.45	178	44.291	239	45.81	326
26	22.17	57	26.37	330	56.23	39	36.80	337	12.182	269	53.23	196	44.530	288	42.55	318
Dez. 6	22.74	67	23.07	288	56.62	45	33.43	302	12.451	300	55.19	209	44.818	328	39.37	299
16	23.41	74	20.19	240	57.07	50	30.41	259	12.751	324	57.28	217	45.146	361	36.38	272
26	24.15	81	17.79	183	57.57	53	27.82	207	13.075	337	59.45	217	45.507	381	33.66	236
36	24.96		15.96		58.10		25.75		13.412		61.62		45.888		31.30	
Mittl. Ort	22.35		58.01		55.33		66.38		10.531		37.59		43.050		67.29	
sec δ, tg δ	3.372		+3.220		2.018		+1.753		1.000		−0.004		1.261		+0.768	
a, *a′*	+1.5		−18.7		+2.2		−18.7		+3.1		−18.5		+2.7		−18.5	
b, *b′*	−0.20		+ 0.36		−0.11		+ 0.37		0.00		+ 0.39		−0.05		+ 0.39	

Tag	504) ε Centauri AR.		Dekl.		507) τ Bootis AR.		Dekl.		509) η Ursae maj. AR.		Dekl.		510) 89 Virginis AR.		Dekl.	
1931	13h 35m		−53° 6′		13h 43m		+17° 47′		13h 44m		+49° 38′		13h 46m		−17° 47′	
Jan. 1	28.498	504	45.46	124	58.428	343	50.78	224	49.173	440	67.89	209	6.191	354	25.10	190
11	29.002	499	46.70	168	58.771	344	48.54	196	49.613	447	65.80	154	6.545	352	27.00	198
21	29.501	480	48.38	205	59.115	335	46.58	160	50.060	440	64.26	94	6.897	340	28.98	202
31	29.981	449	50.43	238	59.450	317	44.98	121	50.500	419	63.32	32	7.237	321	31.00	199
Feb. 10	30.430	410	52.81	264	59.767	290	43.77	79	50.919	386	63.00	29	7.558	295	32.99	192
20	30.840	364	55.45	282	60.057	259	42.98	37	51.305	344	63.29	87	7.853	264	34.91	178
März 2	31.204	314	58.27	293	60.316	224	42.61	4	51.649	294	64.16	140	8.117	231	36.69	163
12	31.518	263	61.20	299	60.540	187	42.65	42	51.943	239	65.56	184	8.348	196	38.32	145
22	31.781	210	64.19	298	60.727	150	43.07	75	52.182	182	67.40	220	8.544	161	39.77	126
Apr. 1	31.991	159	67.17	291	60.877	114	43.82	101	52.364	124	69.60	245	8.705	129	41.03	106
11	[16] 32.150	108	70.08	280	[18] 60.991	80	44.83	121	[19] 52.488	68	72.05	260	[19] 8.834	97	42.09	88
20	32.258	59	72.88	263	61.071	48	46.04	136	52.556	16	74.65	264	8.931	67	42.97	70
30	32.317	13	75.51	242	61.119	18	47.40	142	52.572	34	77.29	259	8.998	39	43.67	52
Mai 10	32.330	32	77.93	217	61.137	8	48.82	142	52.538	78	79.88	244	9.037	12	44.19	37
20	32.298	74	80.10	188	61.129	33	50.24	138	52.460	116	82.32	219	9.049	12	44.56	21
30	32.224	114	81.98	155	61.096	55	51.62	128	52.344	151	84.51	189	9.037	35	44.77	6
Juni 9	32.110	149	83.53	119	61.041	73	52.90	114	52.193	178	86.40	153	9.002	56	44.83	7
19	31.961	180	84.72	81	60.968	90	54.04	97	52.015	202	87.93	113	8.946	76	44.76	20
29	31.781	206	85.53	41	60.878	105	55.01	76	51.813	218	89.06	69	8.870	92	44.56	32
Juli 9	31.575	225	85.94	1	60.773	115	55.77	55	51.595	230	89.75	24	8.778	106	44.24	44
19	31.350	235	85.93	41	60.658	122	56.32	30	51.365	234	89.99	22	8.672	115	43.80	53
29	31.115	238	85.52	81	60.536	124	56.62	5	51.131	233	89.77	69	8.557	120	43.27	62
Aug. 8	30.877	230	84.71	119	60.412	122	56.67	22	50.898	225	89.08	114	8.437	118	42.65	67
18	30.647	210	83.52	151	60.290	114	56.45	48	50.673	208	87.94	158	8.319	111	41.98	71
28	30.437	179	82.01	179	60.176	99	55.97	76	50.465	185	86.36	200	8.208	96	41.27	70
Sept. 7	30.258	137	80.22	201	60.077	78	55.21	103	50.280	153	84.36	238	8.112	73	40.57	66
17	30.121	84	78.21	213	59.999	50	54.18	131	50.127	113	81.98	273	8.039	44	39.91	58
27	30.037	20	76.08	218	59.949	15	52.87	159	50.014	65	79.25	303	7.995	6	39.33	44
Okt. 7	30.017	50	73.90	212	59.934	26	51.28	185	49.949	11	76.22	329	7.989	37	38.89	26
17	30.067	124	71.78	198	59.960	70	49.43	209	49.938	50	72.93	348	8.026	85	38.63	3
27	30.191	202	69.80	173	60.030	119	47.34	230	49.988	113	69.45	359	8.111	135	38.60	22
Nov. 6	30.393	276	68.07	140	60.149	167	45.04	248	50.101	179	65.86	363	8.246	185	38.82	50
16	30.669	344	66.67	100	60.316	214	42.56	260	50.280	242	62.23	357	8.431	232	39.32	80
26	31.013	404	65.67	54	60.530	257	39.96	266	50.522	302	58.66	343	8.663	275	40.12	110
Dez. 6	31.417	452	65.13	5	60.787	292	37.30	265	50.824	355	55.23	318	8.938	310	41.22	137
16	31.869	485	65.08	44	61.079	320	34.65	256	51.179	396	52.05	283	9.248	335	42.59	160
26	32.354	503	65.52	94	61.399	338	32.09	238	51.575	427	49.22	239	9.583	350	44.19	179
36	32.857		66.46		61.737		29.71		52.002		46.83		9.933		45.98	
Mittl. Ort	30.126		59.04		58.987		59.77		49.469		85.39		7.112		27.97	
sec δ, tg δ	1.666		−1.333		1.050		+0.321		1.545		+1.177		1.050		−0.321	
a, *a′*	+3.8		−18.3		+2.9		−18.0		+2.4		−18.0		+3.3		−17.9	
b, *b′*	+0.08		+ 0.40		−0.02		+ 0.44		−0.07		+ 0.44		+0.02		+ 0.45	

Tag	512) ζ Centauri				513) η Bootis				517) 11 Bootis				516) τ Virginis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$13^h\ 51^m$		$-46°\ 56'$		$13^h\ 51^m$		$+18°\ 44'$		$13^h\ 58^m$		$+27°\ 42'$		$13^h\ 58^m$		$+1°\ 52'$	
Jan. 1	11.875	456	47.35	121	23.366	343	24.98	229	2.247	354	56.50	233	7.226	335	35.24	215
11	12.331	455	48.56	159	23.709	346	22.69	199	2.601	359	54.17	194	7.561	337	33.09	203
21	12.786	441	50.15	193	24.055	337	20.70	162	2.960	353	52.23	150	7.898	329	31.06	185
31	13.227	418	52.08	220	24.392	321	19.08	123	3.313	337	50.73	102	8.227	313	29.21	161
Feb. 10	13.645	385	54.28	242	24.713	296	17.85	80	3.650	313	49.71	53	8.540	290	27.60	134
20	14.030	347	56.70	256	25.009	266	17.05	36	3.963	282	49.18	3	8.830	261	26.26	103
März 2	14.377	305	59.26	265	25.275	231	16.69	6	4.245	247	49.15	45	9.091	230	25.23	72
12	14.682	261	61.91	268	25.506	195	16.75	44	4.492	209	49.60	87	9.321	197	24.51	42
22	14.943	215	64.59	266	25.701	158	17.19	78	4.701	169	50.47	123	9.518	164	24.09	14
Apr. 1	15.158	171	67.25	260	25.859	122	17.97	105	4.870	129	51.70	153	9.682	132	23.95	12
11	15.329	127	69.85	248	25.981	88	19.02	127	4.999	92	53.23	173	9.814	101	24.07	32
20*)	[20] 15.456	85	72.33	233	[20] 26.069	55	20.29	140	5.091	56	54.96	187	9.915	71	24.39	50
30	15.541	43	74.66	214	26.124	25	21.69	148	[22] 5.147	22	56.83	191	[22] 9.986	43	24.89	62
Mai 10	15.584	3	76.80	193	26.149	2	23.17	149	5.169	8	58.74	188	10.029	18	25.51	71
20	15.587	35	78.73	167	26.147	27	24.66	143	5.161	36	60.62	179	10.047	7	26.22	76
30	15.552	71	80.40	138	26.120	50	26.09	133	5.125	62	62.41	163	10.040	29	26.98	77
Juni 9	15.481	105	81.78	107	26.070	71	27.42	119	5.063	85	64.04	142	10.011	50	27.75	76
19	15.376	135	82.85	75	25.999	89	28.61	101	4.978	104	65.46	118	9.961	69	28.51	72
29	15.241	160	83.60	39	25.910	104	29.62	80	4.874	121	66.64	89	9.892	85	29.23	65
Juli 9	15.081	181	83.99	3	25.806	116	30.42	56	4.753	134	67.53	58	9.807	99	29.88	58
19	14.900	195	84.02	33	25.690	123	30.98	32	4.619	143	68.11	26	9.708	109	30.46	48
29	14.705	201	83.69	67	25.567	128	31.30	6	4.476	147	68.37	7	9.599	115	30.94	36
Aug. 8	14.504	199	83.02	100	25.439	126	31.36	22	4.329	146	68.30	41	9.484	115	31.30	24
18	14.305	186	82.02	130	25.313	119	31.14	50	4.183	138	67.89	76	9.369	110	31.54	10
28	14.119	163	80.72	155	25.194	105	30.64	78	4.045	124	67.13	110	9.259	98	31.64	7
Sept. 7	13.956	129	79.17	173	25.089	84	29.86	106	3.921	103	66.03	142	9.161	79	31.57	25
17	13.827	85	77.44	185	25.005	57	28.80	135	3.818	75	64.61	175	9.082	53	31.32	46
27	13.742	32	75.59	189	24.948	23	27.45	163	3.743	39	62.86	206	9.029	19	30.86	67
Okt. 7	13.710	29	73.70	184	24.925	18	25.82	189	3.704	3	60.80	233	9.010	20	30.19	91
17	13.739	95	71.86	170	24.943	63	23.93	214	3.707	50	58.47	257	9.030	64	29.28	115
27	13.834	164	70.16	148	25.006	111	21.79	236	3.757	100	55.90	278	9.094	112	28.13	139
Nov. 6	13.998	233	68.68	118	25.117	160	19.43	253	3.857	152	53.12	292	9.206	159	26.74	162
16	14.231	296	67.50	82	25.277	207	16.90	265	4.009	202	50.20	301	9.365	206	25.12	184
26	14.527	352	66.68	40	25.484	251	14.25	272	4.211	249	47.19	301	9.571	248	23.28	201
Dez. 6	14.879	398	66.28	4	25.735	289	11.53	270	4.460	290	44.18	293	9.819	284	21.27	212
16	15.277	432	66.32	49	26.024	318	8.83	260	4.750	323	41.25	277	10.103	311	19.15	219
26	15.709	453	66.81	94	26.342	336	6.23	242	5.073	345	38.48	251	10.414	329	16.96	218
36	16.162		67.75		26.678		3.81		5.418		35.97		10.743		14.78	
Mittl. Ort	13.411		58.60		23.963		34.47		2.820		68.82		8.002		39.45	
sec δ, tg δ	1.465		−1.070		1.056		+0.339		1.130		+0.525		1.000		+0.033	
a, *a'*	+3.7		−17.7		+2.9		−17.7		+2.7		−17.4		+3.1		−17.4	
b, *b'*	+0.06		+ 0.47		−0.02		+ 0.47		−0.03		+ 0.49		0.00		+ 0.49	

*) Bei Stern 517) und 516) lies April 21

Tag	518) β Centauri AR.		518) β Centauri Dekl.		521) α Draconis AR.		521) α Draconis Dekl.		520) ϑ Centauri AR.		520) ϑ Centauri Dekl.		522) d Bootis AR.		522) d Bootis Dekl.	
1931	$13^h 58^m$		−60° 2′		$14^h 2^m$		+64° 41′		$14^h 2^m$		−36° 1′		$14^h 7^m$		+25° 24′	
Jan. 1	54.01	58	14.75	76	30.85	58	58.70	207	35.485	398	45.45	138	14.526	347	52.07	236
11	54.59	59	15.51	124	31.43	61	56.63	146	35.883	400	46.83	167	14.873	353	49.71	201
21	55.18	57	16.75	169	32.04	61	55.17	81	36.283	390	48.50	190	15.226	349	47.70	160
31	55.75	54	18.44	208	32.65	59	54.36	14	36.673	371	50.40	207	15.575	335	46.10	114
Feb. 10	56.29	51	20.52	241	33.24	56	54.22	52	37.044	345	52.47	219	15.910	313	44.96	65
20	56.80	46	22.93	268	33.80	50	54.74	115	37.389	313	54.66	224	16.223	284	44.31	16
März 2	57.26	41	25.61	287	34.30	43	55.89	171	37.702	277	56.90	225	16.507	251	44.15	31
12	57.67	35	28.48	301	34.73	36	57.60	218	37.979	241	59.15	222	16.758	214	44.46	73
22	58.02	29	31.49	308	35.09	27	59.78	256	38.220	203	61.37	214	16.972	176	45.19	110
Apr. 1	58.31	23	34.57	308	35.36	18	62.34	282	38.423	165	63.51	204	17.148	139	46.29	141
11	58.54	17	37.65	303	35.54	10	65.16	296	38.588	129	65.55	190	17.287	102	47.70	163
21	58.71	10	40.68	292	35.64	1	68.12	299	38.717	93	67.45	175	17.389	67	49.33	177
30	[22] 58.81	5	43.60	277	[23] 35.65	8	71.11	291	[23] 38.810	59	69.20	158	[24] 17.456	35	51.10	184
Mai 10	58.86	1	46.37	255	35.57	15	74.02	273	38.869	25	70.78	139	17.491	3	52.94	183
20	58.85	7	48.92	228	35.42	21	76.75	246	38.894	6	72.17	118	17.494	25	54.77	176
30	58.78	12	51.20	198	35.21	27	79.21	210	38.888	37	73.35	95	17.469	51	56.53	162
Juni 9	58.66	16	53.18	162	34.94	33	81.31	169	38.851	66	74.30	71	17.418	74	58.15	143
19	58.50	21	54.80	124	34.61	36	83.00	123	38.785	93	75.01	46	17.344	95	59.58	121
29	58.29	25	56.04	82	34.25	39	84.23	74	38.692	117	75.47	19	17.249	114	60.79	95
Juli 9	58.04	28	56.86	39	33.86	42	84.97	23	38.575	136	75.66	7	17.135	128	61.74	65
19	57.76	30	57.25	7	33.44	42	85.20	30	38.439	151	75.59	33	17.007	138	62.39	35
29	57.46	31	57.18	52	33.02	42	84.90	82	38.288	159	75.26	59	16.869	145	62.74	3
Aug. 8	57.15	31	56.66	94	32.60	41	84.08	132	38.129	160	74.67	82	16.724	145	62.77	29
18	56.84	29	55.72	135	32.19	39	82.76	180	37.969	152	73.85	103	16.579	139	62.48	63
28	56.55	25	54.37	170	31.80	35	80.96	226	37.817	137	72.82	119	16.440	127	61.85	96
Sept. 7	56.30	21	52.67	200	31.45	31	78.70	268	37.680	111	71.63	131	16.313	107	60.89	129
17	56.09	15	50.67	221	31.14	25	76.02	304	37.569	76	70.32	137	16.206	81	59.60	160
27	55.94	8	48.46	234	30.89	18	72.98	335	37.493	33	68.95	135	16.125	46	58.00	190
Okt. 7	55.86	1	46.12	238	30.71	10	69.63	361	37.460	18	67.60	128	16.079	5	56.10	219
17	55.87	10	43.74	231	30.61	2	66.02	379	37.478	74	66.32	113	16.074	41	53.91	245
27	55.97	19	41.43	213	30.59	7	62.23	387	37.552	133	65.19	90	16.115	90	51.46	266
Nov. 6	56.16	27	39.30	186	30.66	17	58.36	389	37.685	193	64.29	62	16.205	142	48.80	282
16	56.43	36	37.44	151	30.83	26	54.47	380	37.878	248	63.67	30	16.347	192	45.98	293
26	56.79	44	35.93	107	31.09	35	50.67	360	38.126	299	63.37	7	16.539	239	43.05	295
Dez. 6	57.23	50	34.86	60	31.44	43	47.07	330	38.425	341	63.44	45	16.778	281	40.10	290
16	57.73	55	34.26	9	31.87	50	43.77	290	38.766	374	63.89	82	17.059	313	37.20	277
26	58.28	58	34.17	43	32.37	56	40.87	241	39.140	393	64.71	117	17.372	337	34.43	253
36	58.86		34.60		32.93		38.46		39.533		65.88		17.709		31.90	
Mittl. Ort	56.22		28.41		31.20		78.81		36.810		53.16		15.174		63.93	
sec δ, tg δ	2.002		−1.735		2.340		+2.116		1.237		−0.727		1.107		+0.475	
a, a'	+4.2		−17.4		+1.6		−17.2		+3.6		−17.2		+2.7		−17.0	
b, b'	+0.10		+ 0.50		−0.12		+ 0.51		+0.04		+ 0.51		−0.03		+ 0.53	

Tag	524) 4 Ursae min. AR.		Dekl.		523) κ Virginis AR.		Dekl.		525) ι Virginis AR.		Dekl.		526) α Bootis AR.		Dekl.	
1931	14h 9m		+77° 51′		14h 9m		−9° 57′		14h 12m		−5° 40′		14h 12m		+19° 31′	
Jan. 1	4.83	104	57.15	191	11.756	340	12.87	193	22.659	336	21.79	202	30.091	335	76.97	241
11	5.87	110	55.24	128	12.096	342	14.80	194	22.995	339	23.81	198	30.426	342	74.56	211
21	6.97	113	53.96	61	12.438	336	16.74	189	23.334	333	25.79	189	30.768	338	72.45	175
31	8.10	111	53.35	6	12.774	322	18.63	179	23.667	319	27.68	173	31.106	325	70.70	134
Feb. 10	9.21	105	53.41	73	13.096	299	20.42	163	23.986	298	29.41	154	31.431	305	69.36	91
20	10.26	95	54.14	136	13.395	273	22.05	143	24.284	272	30.95	130	31.736	277	68.45	45
März 2	11.21	83	55.50	190	13.668	243	23.48	122	24.556	243	32.25	105	32.013	245	68.00	1
12	12.04	68	57.40	237	13.911	211	24.70	100	24.799	211	33.30	79	32.258	212	67.99	39
22	12.72	50	59.77	273	14.122	179	25.70	76	25.010	180	34.09	55	32.470	176	68.38	76
Apr. 1	13.22	32	62.50	296	14.301	147	26.46	55	25.190	148	34.64	31	32.646	141	69.14	105
11	13.54	13	65.46	309	14.448	117	27.01	36	25.338	118	34.95	11	32.787	107	70.19	128
21	13.67	5	68.55	309	14.565	88	27.37	19	25.456	88	35.06	7	32.894	74	71.47	144
30	^{25}13.62	23	71.64	297	^{25}14.653	60	27.56	3	^{26}25.544	61	34.99	21	^{25}32.968	43	72.91	153
Mai 10	13.39	39	74.61	275	14.713	33	27.59	9	25.605	34	34.78	32	33.011	13	74.44	156
20	13.00	54	77.36	245	14.746	7	27.50	20	25.639	9	34.46	40	33.024	14	76.00	151
30	12.46	67	79.81	207	14.753	17	27.30	29	25.648	16	34.06	46	33.010	40	77.51	142
Juni 9	11.79	78	81.88	162	14.736	40	27.01	35	25.632	39	33.60	50	32.970	63	78.93	127
19	11.01	86	83.50	114	14.696	61	26.66	40	25.593	60	33.10	52	32.907	84	80.20	109
29	10.15	92	84.64	61	14.635	81	26.26	45	25.533	79	32.58	52	32.823	102	81.29	88
Juli 9	9.23	96	85.25	8	14.554	98	25.81	47	25.454	96	32.06	51	32.721	118	82.17	64
19	8.27	98	85.33	47	14.456	109	25.34	49	25.358	109	31.55	49	32.603	129	82.81	38
29	7.29	97	84.86	100	14.347	118	24.85	49	25.249	116	31.06	44	32.474	137	83.19	10
Aug. 8	6.32	94	83.86	151	14.229	120	24.36	48	25.133	120	30.62	38	32.337	139	83.29	18
18	5.38	89	82.35	200	14.109	116	23.88	44	25.013	117	30.24	31	32.198	134	83.11	47
28	4.49	82	80.35	245	13.993	106	23.44	38	24.896	107	29.93	20	32.064	124	82.64	76
Sept. 7	3.67	73	77.90	285	13.887	87	23.06	28	24.789	89	29.73	8	31.940	105	81.88	106
17	2.94	61	75.05	320	13.800	61	22.78	16	24.700	63	29.65	6	31.835	80	80.82	136
27	2.33	48	71.85	350	13.739	27	22.62	0	24.637	31	29.71	25	31.755	47	79.46	165
Okt. 7	1.85	33	68.35	373	13.712	13	22.62	19	24.606	9	29.96	45	31.708	7	77.81	192
17	1.52	16	64.62	387	13.725	58	22.81	40	24.615	53	30.41	68	31.701	37	75.89	219
27	1.36	1	60.75	394	13.783	107	23.21	65	24.668	101	31.09	92	31.738	85	73.70	241
Nov. 6	1.37	19	56.81	391	13.890	156	23.86	90	24.769	151	32.01	117	31.823	136	71.29	260
16	1.56	38	52.90	378	14.046	204	24.76	115	24.920	198	33.18	140	31.959	185	68.69	273
26	1.94	55	49.12	355	14.250	249	25.91	139	25.118	241	34.58	161	32.144	230	65.96	280
Dez. 6	2.49	72	45.57	322	14.499	285	27.30	160	25.359	279	36.19	180	32.374	271	63.16	280
16	3.21	86	42.35	278	14.784	314	28.90	177	25.638	309	37.99	193	32.645	303	60.36	271
26	4.07	98	39.57	227	15.098	334	30.67	187	25.947	328	39.92	199	32.948	326	57.65	254
36	5.05		37.30		15.432		32.54		26.275		41.91		33.274		55.11	
Mittl. Ort	5.23		78.37		12.712		12.17		23.586		19.56		30.810		87.21	
sec δ, tg δ	4.760		+4.653		1.015		−0.175		1.005		−0.099		1.061		+0.355	
a, *a′*	−0.2		−16.9		+3.2		−16.9		+3.1		−16.8		+2.8		−16.8	
b, *b′*	−0.26		+ 0.53		+0.01		+ 0.53		+0.01		+ 0.55		−0.02		+ 0.55	

Tag	527) λ Bootis				531) ϑ Bootis				534) ρ Bootis				535) γ Bootis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$14^h\ 13^m$		$+46°\ 23'$		$14^h\ 22^m$		$+52°\ 9'$		$14^h\ 28^m$		$+30°\ 39'$		$14^h\ 29^m$		$+38°\ 35'$	
Jan. 1	45.142^s	405	$58.81''$	238	50.260^s	431	$50.17''$	245	50.642^s	346	$70.90''$	250	17.288^s	366	$77.83''$	253
11	45.547	419	56.43	187	50.691	451	47.72	190	50.988	358	68.40	211	17.654	379	75.30	208
21	45.966	419	54.56	130	51.142	455	45.82	131	51.346	359	66.29	165	18.033	382	73.22	156
31	46.385	406	53.26	70	51.597	446	44.51	68	51.705	349	64.64	116	18.415	374	71.66	100
Feb. 10	46.791	383	52.56	8	52.043	423	43.83	3	52.054	332	63.48	62	18.789	355	70.66	42
20	47.174	350	52.48	52	52.466	388	43.80	60	52.386	305	62.86	10	19.144	327	70.24	15
März 2	47.524	308	53.00	108	52.854	345	44.40	117	52.691	274	62.76	42	19.471	293	70.39	70
12	47.832	261	54.08	157	53.199	295	45.57	168	52.965	239	63.18	89	19.764	255	71.09	119
22	48.093	210	55.65	198	53.494	238	47.25	211	53.204	201	64.07	130	20.019	212	72.28	163
Apr. 1	48.303	160	57.63	230	53.732	181	49.36	245	53.405	163	65.37	163	20.231	169	73.91	197
11	48.463	108	59.93	250	53.913	122	51.81	267	53.568	125	67.00	189	20.400	126	75.88	222
21	[26] 48.571	58	62.43	262	[28] 54.035	66	54.48	277	[30] 53.693	86	68.89	205	[30] 20.526	84	78.10	237
30	48.629	11	65.05	263	54.101	10	57.25	279	53.779	51	70.94	214	20.610	42	80.47	244
Mai 10	48.640	33	67.68	254	54.111	41	60.04	269	53.830	17	73.08	213	20.652	3	82.91	240
20	48.607	73	70.22	236	54.070	89	62.73	251	53.847	16	75.21	205	20.655	33	85.31	230
30	48.534	110	72.58	212	53.981	133	65.24	224	53.831	46	77.26	190	20.622	67	87.61	210
Juni 9	48.424	142	74.70	180	53.848	170	67.48	191	53.785	74	79.16	170	20.555	97	89.71	184
19	48.282	170	76.50	144	53.678	203	69.39	153	53.711	99	80.86	144	20.458	125	91.55	154
29	48.112	192	77.94	104	53.475	231	70.92	110	53.612	121	82.30	115	20.333	149	93.09	120
Juli 9	47.920	210	78.98	60	53.244	251	72.02	64	53.491	140	83.45	82	20.184	168	94.29	82
19	47.710	221	79.58	16	52.993	265	72.66	17	53.351	154	84.27	48	20.016	182	95.11	41
29	47.489	227	79.74	29	52.728	273	72.83	32	53.197	164	84.75	11	19.834	193	95.52	0
Aug. 8	47.262	226	79.45	75	52.455	273	72.51	80	53.033	167	84.86	26	19.641	195	95.52	42
18	47.036	217	78.70	120	52.182	264	71.71	127	52.866	164	84.60	63	19.446	191	95.10	83
28	46.819	201	77.50	163	51.918	245	70.44	173	52.702	155	83.97	100	19.255	179	94.27	125
Sept. 7	46.618	175	75.87	204	51.673	219	68.71	216	52.547	137	82.97	136	19.076	160	93.02	165
17	46.443	141	73.83	242	51.454	182	66.55	255	52.410	111	81.61	172	18.916	132	91.37	203
27	46.302	99	71.41	276	51.272	137	64.00	290	52.299	77	79.89	205	18.784	96	89.34	237
Okt. 7	46.203	49	68.65	306	51.135	82	61.10	321	52.222	37	77.84	236	18.688	52	86.97	269
17	46.154	6	65.59	330	51.053	21	57.89	346	52.185	9	75.48	263	18.636	2	84.28	297
27	46.160	68	62.29	347	51.032	45	54.43	363	52.194	61	72.85	285	18.634	52	81.31	317
Nov. 6	46.228	131	58.82	357	51.077	116	50.80	373	52.255	115	70.00	302	18.686	111	78.14	333
16	46.359	195	55.25	358	51.193	186	47.07	373	52.370	168	66.98	313	18.797	169	74.81	339
26	46.554	254	51.67	350	51.379	254	43.34	363	52.538	220	63.85	315	18.966	224	71.42	338
Dez. 6	46.808	308	48.17	332	51.633	315	39.71	343	52.758	265	60.70	309	19.190	274	68.04	327
16	47.116	354	44.85	304	51.948	369	36.28	314	53.023	304	57.61	293	19.464	317	64.77	305
26	47.470	388	41.81	265	52.317	410	33.14	272	53.327	333	54.68	268	19.781	349	61.72	275
36	47.858		39.16		52.727		30.42		53.660		52.00		20.130		58.97	
Mittl. Ort	45.722		75.98		50.906		68.49		51.401		84.54		18.021		93.41	
sec δ, tg δ	1.450		+1.050		1.630		+1.288		1.163		+0.593		1.280		+0.799	
a, *a'*	+2.3		−16.7		+2.1		−16.3		+2.6		−16.0		+2.4		−15.9	
b, *b'*	−0.06		+ 0.55		−0.07		+ 0.58		−0.03		+0.60		−0.04		+0.61	

Tag	537) η Centauri AR.		537) η Centauri Dekl.		538) α Centauri [1] AR.		538) α Centauri [1] Dekl.		543) ζ Bootis med. AR.		543) ζ Bootis med. Dekl.		542) α Apodis AR.		542) α Apodis Dekl.	
1931	14h 31m		−41° 51′		14h 34m		−60° 32′		14h 37m		+14° 0′		14h 39m		−78° 45′	
Jan. 1	5.338 s	420	13.28 ″	91	51.72 s	57	54.25 ″	35	50.276 s	324	74.73 ″	235	5.41 s	131	1.40 ″	36
11	5.758	427	14.19	125	52.29	59	54.60	82	50.600	333	72.38	212	6.72	134	1.04	21
21	6.185	424	15.44	153	52.88	59	55.42	127	50.933	334	70.26	182	8.06	136	1.25	76
31	6.609	411	16.97	178	53.47	57	56.69	167	51.267	326	68.44	146	9.42	135	2.01	129
Feb. 10	7.020	389	18.75	196	54.04	53	58.36	203	51.593	309	66.98	107	10.77	128	3.30	177
20	7.409	360	20.71	210	54.57	49	60.39	232	51.902	287	65.91	66	12.05	121	5.07	221
März 2	7.769	328	22.81	218	55.06	45	62.71	255	52.189	261	65.25	25	13.26	111	7.28	258
12	8.097	291	24.99	222	55.51	40	65.26	273	52.450	230	65.00	14	14.37	98	9.86	290
22	8.388	254	27.21	221	55.91	33	67.99	284	52.680	199	65.14	51	15.35	85	12.76	313
Apr. 1	8.642	216	29.42	217	56.24	28	70.83	289	52.879	167	65.65	81	16.20	70	15.89	331
11	8.858	177	31.59	210	56.52	22	73.72	289	53.046	136	66.46	106	16.90	55	19.20	342
21	9.035	139	33.69	199	56.74	16	76.61	284	53.182	104	67.52	126	17.45	39	22.62	345
30*)	9.174	100	35.68	186	56.90	10	79.45	273	53.286	73	68.78	137	17.84	22	26.07	341
Mai 10	9.274	61	37.54	170	57.00	3	82.18	257	53.359	44	70.15	143	18.06	5	29.48	330
20	9.335	23	39.24	152	57.03	3	84.75	236	53.403	16	71.58	144	18.11	12	32.78	313
30	9.358	14	40.76	131	57.00	9	87.11	210	53.419	12	73.02	139	17.99	28	35.91	288
Juni 9	9.344	50	42.07	107	56.91	14	89.21	180	53.407	38	74.41	129	17.71	43	38.79	257
19	9.294	84	43.14	82	56.77	19	91.01	145	53.369	61	75.70	115	17.28	57	41.36	219
29	9.210	116	43.96	54	56.58	24	92.46	108	53.308	84	76.85	99	16.71	70	43.55	176
Juli 9	9.094	142	44.50	25	56.34	28	93.54	66	53.224	103	77.84	79	16.01	80	45.31	128
19	8.952	164	44.75	5	56.06	31	94.20	24	53.121	119	78.63	58	15.21	88	46.59	77
29	8.788	180	44.70	35	55.75	33	94.44	20	53.002	131	79.21	35	14.33	93	47.36	23
Aug. 8	8.608	186	44.35	64	55.42	33	94.24	63	52.871	137	79.56	10	13.40	94	47.59	31
18	8.422	184	43.71	91	55.09	33	93.61	106	52.734	137	79.66	15	12.46	92	47.28	85
28	8.238	172	42.80	114	54.76	30	92.55	144	52.597	130	79.51	41	11.54	86	46.43	137
Sept. 7	8.066	149	41.66	134	54.46	26	91.11	177	52.467	116	79.10	68	10.68	75	45.06	183
17	7.917	114	40.32	147	54.20	21	89.34	204	52.351	93	78.42	95	9.93	63	43.23	224
27	7.803	70	38.85	155	53.99	14	87.30	222	52.258	64	77.47	123	9.30	46	40.99	255
Okt. 7	7.733	18	37.30	154	53.85	6	85.08	233	52.194	26	76.24	151	8.84	26	38.44	278
17	7.715	42	35.76	146	53.79	3	82.75	232	52.168	16	74.73	176	8.58	6	35.66	289
27	7.757	106	34.30	132	53.82	13	80.43	223	52.184	64	72.97	201	8.52	17	32.77	288
Nov. 6	7.863	172	32.98	108	53.95	22	78.20	202	52.248	114	70.96	222	8.69	41	29.89	276
16	8.035	234	31.90	79	54.17	31	76.18	174	52.362	163	68.74	240	9.10	62	27.13	253
26	8.269	292	31.11	46	54.48	39	74.44	137	52.525	209	66.34	251	9.72	82	24.60	218
Dez. 6	8.561	342	30.65	9	54.87	47	73.07	94	52.734	252	63.83	256	10.54	100	22.42	176
16	8.903	382	30.56	29	55.34	52	72.13	46	52.986	286	61.27	254	11.54	115	20.66	127
26	9.285	410	30.85	68	55.86	57	71.67	2	53.272	312	58.73	244	12.69	126	19.39	73
36	9.695		31.53		56.43		71.69		53.584		56.29		13.95		18.66	
Mittl. Ort	6.990		20.89		54.22		65.72		51.177		83.90		11.82		14.78	
sec δ, tg δ	1.343		−0.896		2.034		−1.771		1.031		+0.250		5.128		−5.029	
a, *a′*	+3.8		−15.8		+4.6		−15.6		+2.9		−15.5		+7.4		−15.4	
b, *b′*	+0.05		+ 0.61		+0.09		+ 0.63		−0.01		+ 0.64		+0.26		+ 0.64	

[1] Ort des hellen Sterns; die jährliche Parallaxe (0.″75) ist bereits berücksichtigt

*) Bei Stern 538), 543) und 542) lies Mai 1

Scheinbare Sternörter 1931

Tag	545) μ Virginis AR.		545) Dekl.		547) 109 Virginis AR.		547) Dekl.		548) α Librae AR.		548) Dekl.		549) Grb 2164 AR.		549) Dekl.	
1931	14ʰ 39ᵐ		−5° 21′		14ʰ 42ᵐ		+2° 10′		14ʰ 47ᵐ		−15° 45′		14ʰ 49ᵐ		+59° 33′	
Jan. 1	24.199	327	36.72	195	44.508	321	51.41	211	2.203	335	22.60	161	40.204	465	66.15	263
11	24.526	335	38.67	191	44.829	330	49.30	200	2.538	345	24.21	169	40.669	500	63.52	208
21	24.861	334	40.58	182	45.159	330	47.30	183	2.883	345	25.90	171	41.169	518	61.44	147
31	25.195	325	42.40	167	45.489	322	45.47	160	3.228	337	27.61	167	41.687	519	59.97	82
Feb. 10	25.520	308	44.07	147	45.811	307	43.87	132	3.565	321	29.28	159	42.206	503	59.15	15
20	25.828	287	45.54	123	46.118	285	42.55	101	3.886	300	30.87	147	42.709	473	59.00	51
März 2	26.115	261	46.77	98	46.403	260	41.54	70	4.186	275	32.34	131	43.182	430	59.51	114
12	26.376	233	47.75	73	46.663	233	40.84	38	4.461	247	33.65	114	43.612	375	60.65	169
22	26.609	204	48.48	48	46.896	203	40.46	8	4.708	218	34.79	95	43.987	313	62.34	217
Apr. 1	26.813	174	48.96	23	47.099	173	40.38	19	4.926	189	35.74	77	44.300	246	64.51	255
11	26.987	144	49.19	3	47.272	143	40.57	41	5.115	159	36.51	61	44.546	175	67.06	281
21	27.131	116	49.22	14	47.415	114	40.98	60	5.274	130	37.12	45	44.721	105	69.87	297
Mai 1	27.247	87	49.08	29	47.529	86	41.58	74	5.404	101	37.57	32	44.826	35	72.84	301
10	[2] 27.334	59	48.79	39	[3] 47.615	57	42.32	83	[4] 5.505	71	37.89	19	[5] 44.861	33	75.85	295
20	27.393	31	48.40	47	47.672	30	43.15	88	5.576	43	38.08	8	44.828	96	78.80	278
30	27.424	5	47.93	52	47.702	2	44.03	89	5.619	14	38.16	1	44.732	155	81.58	254
Juni 9	27.429	21	47.41	55	47.704	23	44.92	88	5.633	15	38.15	10	44.577	207	84.12	221
19	27.408	46	46.86	55	47.681	47	45.80	82	5.618	41	38.05	17	44.370	254	86.33	183
29	27.362	68	46.31	55	47.634	71	46.62	75	5.577	67	37.88	24	44.116	294	88.16	139
Juli 9	27.294	89	45.76	52	47.563	91	47.37	66	5.510	89	37.64	31	43.822	325	89.55	91
19	27.205	107	45.24	48	47.472	109	48.03	55	5.421	109	37.33	37	43.497	349	90.46	42
29	27.098	119	44.76	43	47.363	121	48.58	42	5.312	123	36.96	41	43.148	364	90.88	8
Aug. 8	26.979	126	44.33	36	47.242	129	49.00	29	5.189	133	36.55	45	42.784	369	90.80	60
18	26.853	128	43.97	29	47.113	130	49.29	14	5.056	135	36.10	47	42.415	364	90.20	110
28	26.725	121	43.68	19	46.983	124	49.43	3	4.921	129	35.63	47	42.051	348	89.10	159
Sept. 7	26.604	107	43.49	7	46.859	111	49.40	21	4.792	116	35.16	45	41.703	321	87.51	206
17	26.497	84	43.42	8	46.748	89	49.19	41	4.676	93	34.71	39	41.382	282	85.45	249
27	26.413	55	43.50	24	46.659	60	48.78	62	4.583	61	34.32	29	41.100	232	82.96	287
Okt. 7	26.358	17	43.74	44	46.599	23	48.16	85	4.522	23	34.03	15	40.868	172	80.09	321
17	26.341	27	44.18	65	46.576	19	47.31	108	4.499	22	33.88	2	40.696	102	76.88	349
27	26.368	74	44.83	88	46.595	66	46.23	132	4.521	72	33.90	21	40.594	25	73.39	369
Nov. 6	26.442	124	45.71	112	46.661	116	44.91	155	4.593	124	34.11	44	40.569	58	69.70	382
16	26.566	173	46.83	134	46.777	164	43.36	176	4.717	175	34.55	69	40.627	142	65.88	385
26	26.739	219	48.17	154	46.941	210	41.60	192	4.892	223	35.24	93	40.769	226	62.03	377
Dez. 6	26.958	260	49.71	172	47.151	251	39.68	206	5.115	265	36.17	116	40.995	305	58.26	359
16	27.218	293	51.43	185	47.402	285	37.62	213	5.380	300	37.33	135	41.300	375	54.67	330
26	27.511	317	53.28	192	47.687	310	35.49	213	5.680	325	38.68	153	41.675	434	51.37	291
36	27.828		55.20		47.997		33.36		6.005		40.21		42.109		48.46	
Mittl. Ort	25.263		33.38		45.520		57.18		3.423		22.08		41.162		85.51	
sec δ, tg δ	1.004		−0.094		1.001		+0.038		1.039		−0.282		1.975		+1.703	
a, *a′*	+3.2		−15.4		+3.0		−15.2		+3.3		−14.9		+1.5		−14.8	
b, *b′*	0.00		+ 0.64		0.00		+ 0.65		+0.01		+ 0.67		−0.08		+ 0.67	

Tag	550) β Ursae min. AR.		Dekl.		551) Pi XIV, 221 AR.		Dekl.		552) β Lupi AR.		Dekl.		555) β Bootis AR.		Dekl.	
1931	$14^h 50^m$		$+74° 25'$		$14^h 52^m$		$+14° 42'$		$14^h 53^m$		$-42° 51'$		$14^h 59^m$		$+40° 39'$	
Jan. 1	51.84	76	54.21	246	56.785	317	76.81	238	58.307	416	20.25	64	19.860	351	26.29	273
11	52.60	83	51.75	188	57.102	329	74.43	215	58.723	430	20.89	97	20.211	372	23.56	230
21	53.43	88	49.87	124	57.431	332	72.28	186	59.153	432	21.86	126	20.583	383	21.26	180
31	54.31	89	48.63	57	57.763	328	70.42	150	59.585	424	23.12	152	20.966	382	19.46	123
Feb. 10	55.20	87	48.06	12	58.091	313	68.92	110	60.009	406	24.64	172	21.348	370	18.23	64
20	56.07	82	48.18	79	58.404	294	67.82	67	60.415	383	26.36	188	21.718	349	17.59	3
März 2	56.89	75	48.97	140	58.698	269	67.15	26	60.798	353	28.24	199	22.067	320	17.56	55
12	57.64	64	50.37	195	58.967	242	66.89	15	61.151	321	30.23	206	22.387	286	18.11	109
22	58.28	53	52.32	241	59.209	212	67.04	52	61.472	285	32.29	209	22.673	246	19.20	156
Apr. 1	58.81	40	54.73	276	59.421	180	67.56	85	61.757	249	34.38	207	22.919	205	20.76	195
11	59.21	26	57.49	299	59.601	150	68.41	111	62.006	210	36.45	203	23.124	162	22.71	226
21	59.47	11	60.48	312	59.751	118	69.52	131	62.216	172	38.48	197	23.286	118	24.97	247
Mai 1	59.58	2	63.60	311	59.869	88	70.83	145	62.388	133	40.45	187	23.404	75	27.44	257
10	5 59.56	16	66.71	301	6 59.957	57	72.28	151	6 62.521	92	42.32	175	7 23.479	33	30.01	258
20	59.40	29	69.72	281	60.014	28	73.79	153	62.613	53	44.07	159	23.512	7	32.59	251
30	59.11	40	72.53	251	60.042	1	75.32	147	62.666	12	45.66	141	23.505	46	35.10	234
Juni 9	58.71	51	75.04	214	60.041	29	76.79	138	62.678	28	47.07	121	23.459	82	37.44	212
19	58.20	59	77.18	172	60.012	54	78.17	125	62.650	66	48.28	97	23.377	115	39.56	182
29	57.61	67	78.90	124	59.958	79	79.42	107	62.584	102	49.25	72	23.262	145	41.38	149
Juli 9	56.94	72	80.14	74	59.879	101	80.49	88	62.482	133	49.97	44	23.117	170	42.87	111
19	56.22	76	80.88	21	59.778	118	81.37	65	62.349	161	50.41	15	22.947	192	43.98	70
29	55.46	78	81.09	32	59.660	133	82.02	42	62.188	181	50.56	14	22.755	207	44.68	27
Aug. 8	54.68	78	80.77	85	59.527	141	82.44	16	62.007	193	50.42	44	22.548	215	44.95	16
18	53.90	76	79.92	136	59.386	144	82.60	10	61.814	196	49.98	73	22.333	217	44.79	60
28	53.14	73	78.56	186	59.242	140	82.50	37	61.618	188	49.25	98	22.116	210	44.19	104
Sept. 7	52.41	68	76.70	232	59.102	127	82.13	64	61.430	169	48.27	120	21.906	195	43.15	146
17	51.73	60	74.38	274	58.975	106	81.49	93	61.261	139	47.07	138	21.711	171	41.69	187
27	51.13	51	71.64	311	58.869	78	80.56	121	61.122	97	45.69	149	21.540	137	39.82	226
Okt. 7	50.62	40	68.53	342	58.791	42	79.35	149	61.025	45	44.20	153	21.403	95	37.56	260
17	50.22	28	65.11	366	58.749	1	77.86	176	60.980	13	42.67	151	21.308	46	34.96	291
27	49.94	14	61.45	383	58.750	47	76.10	201	60.993	78	41.16	139	21.262	9	32.05	316
Nov. 6	49.80	0	57.62	391	58.797	97	74.09	223	61.071	144	39.77	121	21.271	68	28.89	335
16	49.80	16	53.71	390	58.894	147	71.86	240	61.215	210	38.56	97	21.339	129	25.54	346
26	49.96	30	49.81	377	59.041	195	69.46	253	61.425	271	37.59	67	21.468	187	22.08	348
Dez. 6	50.26	45	46.04	354	59.236	239	66.93	258	61.696	326	36.92	33	21.655	243	18.60	340
16	50.71	59	42.50	320	59.475	275	64.35	257	62.022	370	36.59	3	21.898	292	15.20	322
26	51.30	69	39.30	277	59.750	304	61.78	247	62.392	403	36.62	39	22.190	330	11.98	294
36	51.99		36.53		60.054		59.31		62.795		37.01		22.520		9.04	
Mittl. Ort	53.21		74.94		57.764		86.50		60.124		26.64		20.813		42.40	
sec δ, tg δ	3.727		+3.591		1.034		+0.263		1.364		−0.928		1.318		+0.859	
a, *a'*	−0.2		−14.7		+2.8		−14.6		+3.9		−14.5		+2.3		−14.2	
b, *b'*	−0.18		+ 0.68		−0.01		+ 0.69		+0.04		+ 0.69		−0.04		+ 0.71	

Tag	556) γ Scorpii AR.	Δ	556) γ Scorpii Dekl.	Δ	557) ψ Bootis AR.	Δ	557) ψ Bootis Dekl.	Δ	558) ζ Lupi AR.	Δ	558) ζ Lupi Dekl.	Δ	560) γ Triang. austr. AR.	Δ	560) γ Triang. austr. Dekl.	Δ
1931	$15^h\ 0^m$		$-25°\ 0'$		$15^h\ 1^m$		$+27°\ 12'$		$15^h\ 7^m$		$-51°\ 50'$		$15^h\ 12^m$		$-68°\ 25'$	
Jan. 1	0.152	348	41.93	123	28.346	322	43.43	262	16.631	469	9.34	15	22.64	72	25.73	52
11	0.500	361	43.16	138	28.668	339	40.81	228	17.100	490	9.49	54	23.36	75	25.21	2
21	0.861	363	44.54	151	29.007	346	38.53	187	17.590	497	10.03	92	24.11	78	25.19	47
31	1.224	356	46.05	158	29.353	343	36.66	141	18.087	492	10.95	125	24.89	77	25.66	93
Feb. 10	1.580	343	47.63	160	29.696	332	35.25	91	18.579	477	12.20	155	25.66	75	26.59	137
20	1.923	323	49.23	157	30.028	312	34.34	39	19.056	453	13.75	181	26.41	73	27.96	176
März 2	2.246	299	50.80	151	30.340	288	33.95	13	19.509	422	15.56	201	27.14	68	29.72	210
12	2.545	272	52.31	143	30.628	259	34.08	61	19.931	387	17.57	216	27.82	62	31.82	239
22	2.817	243	53.74	132	30.887	226	34.69	105	20.318	347	19.73	227	28.44	56	34.21	263
Apr. 1	3.060	213	55.06	120	31.113	193	35.74	142	20.665	306	22.00	233	29.00	49	36.84	280
11	3.273	183	56.26	108	31.306	157	37.16	172	20.971	261	24.33	236	29.49	41	39.64	292
21	3.456	153	57.34	95	31.463	122	38.88	193	21.232	216	26.69	235	29.90	33	42.56	298
Mai 1	3.609	121	58.29	84	31.585	88	40.81	206	21.448	168	29.04	229	30.23	25	45.54	298
10*)	(8) 3.730	90	59.13	71	(8) 31.673	53	42.87	211	(10) 21.616	119	31.33	220	(11) 30.48	16	48.52	293
20	3.820	58	59.84	60	31.726	20	44.98	208	21.735	70	33.53	206	30.64	7	51.45	281
30	3.878	26	60.44	48	31.746	13	47.06	198	21.805	19	35.59	189	30.71	1	54.26	264
Juni 9	3.904	5	60.92	35	31.733	43	49.04	183	21.824	30	37.48	167	30.70	10	56.90	240
19	3.899	36	61.27	23	31.690	73	50.87	161	21.794	79	39.15	142	30.60	19	59.30	210
29	3.863	65	61.50	10	31.617	99	52.48	135	21.715	124	40.57	113	30.41	27	61.40	176
Juli 9	3.798	92	61.60	4	31.518	123	53.83	106	21.591	164	41.70	82	30.14	33	63.16	136
19	3.706	115	61.56	17	31.395	143	54.89	75	21.427	199	42.52	47	29.81	39	64.52	92
29	3.591	133	61.39	31	31.252	158	55.64	41	21.228	226	42.99	10	29.42	43	65.44	45
Aug. 8	3.458	145	61.08	43	31.094	167	56.05	5	21.002	243	43.09	26	28.99	46	65.89	3
18	3.313	149	60.65	54	30.927	171	56.10	30	20.759	248	42.83	62	28.53	47	65.86	51
28	3.164	145	60.11	64	30.756	167	55.80	67	20.511	242	42.21	97	28.06	45	65.35	98
Sept. 7	3.019	132	59.47	70	30.589	154	55.13	103	20.269	221	41.24	127	27.61	41	64.37	143
17	2.887	110	58.77	73	30.435	133	54.10	139	20.048	187	39.97	154	27.20	36	62.94	182
27	2.777	77	58.04	71	30.302	105	52.71	172	19.861	140	38.43	174	26.84	29	61.12	214
Okt. 7	2.700	36	57.33	64	30.197	68	50.99	205	19.721	81	36.69	186	26.55	18	58.98	238
17	2.664	10	56.69	53	30.129	23	48.94	235	19.640	13	34.83	191	26.37	7	56.60	253
27	2.674	63	56.16	37	30.106	26	46.59	260	19.627	61	32.92	186	26.30	4	54.07	257
Nov. 6	2.737	118	55.79	17	30.132	78	43.99	282	19.688	140	31.06	174	26.34	17	51.50	250
16	2.855	173	55.62	7	30.210	132	41.17	297	19.828	217	29.32	152	26.51	30	49.00	233
26	3.028	225	55.69	32	30.342	183	38.20	305	20.045	290	27.80	124	26.81	41	46.67	206
Dez. 6	3.253	270	56.01	59	30.525	231	35.15	304	20.335	355	26.56	90	27.22	52	44.61	172
16	3.523	308	56.60	85	30.756	273	32.11	295	20.690	410	25.66	52	27.74	62	42.89	130
26	3.831	336	57.45	107	31.029	305	29.16	276	21.100	453	25.14	12	28.36	69	41.59	84
36	4.167		58.52		31.334		26.40		21.553		25.02		29.05		40.75	
Mittl. Ort	1.573		43.41		29.324		56.51		18.892		16.70		26.45		35.35	
sec δ, tg δ	1.104		−0.467		1.124		+0.514		1.618		−1.272		2.720		−2.529	
a, *a'*	+3.5		−14.2		+2.6		−14.1		+4.3		−13.7		+5.6		−13.4	
b, *b'*	+0.02		+0.71		−0.02		+0.71		+0.06		+ 0.73		+0.11		+ 0.74	

*) Bei Stern 560) lies Mai 11

Tag	563) δ Bootis				564) β Librae				565) 1 H. Ursae min.				566) φ¹ Lupi			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$15^h 12^m$		$+33° 33'$		$15^h 13^m$		$-9° 7'$		$15^h 13^m$		$+67° 35'$		$15^h 17^m$		$-36° 0'$	
Jan. 1	42.221	324	62.01	275	16.197	315	49.80	171	48.89	54	70.58	280	23.489	374	41.52	65
11	42.545	346	59.26	238	16.512	330	51.51	171	49.43	60	67.78	226	23.863	391	42.17	92
21	42.891	357	56.88	193	16.842	334	53.22	167	50.03	63	65.52	165	24.254	397	43.09	115
31	43.248	357	54.95	142	17.176	330	54.89	156	50.66	65	63.87	99	24.651	394	44.24	133
Feb. 10	43.605	349	53.53	87	17.506	320	56.45	141	51.31	65	62.88	31	25.045	383	45.57	148
20	43.954	332	52.66	31	17.826	304	57.86	122	51.96	62	62.57	37	25.428	365	47.05	157
März 2	44.286	307	52.35	25	18.130	283	59.08	100	52.58	57	62.94	102	25.793	342	48.62	163
12	44.593	278	52.60	78	18.413	259	60.08	78	53.15	51	63.96	161	26.135	315	50.25	165
22	44.871	245	53.38	125	18.672	233	60.86	56	53.66	44	65.57	213	26.450	286	51.90	165
Apr. 1	45.116	209	54.63	165	18.905	206	61.42	35	54.10	35	67.70	254	26.736	255	53.55	162
11	45.325	172	56.28	197	19.111	179	61.77	14	54.45	26	70.24	285	26.991	222	55.17	157
21	45.497	134	58.25	220	19.290	151	61.91	2	54.71	16	73.09	304	27.213	189	56.74	150
Mai 1	45.631	96	60.45	234	19.441	122	61.89	15	54.87	7	76.13	312	27.402	154	58.24	142
11	45.727	58	62.79	239	19.563	94	61.74	26	54.94	3	79.25	309	27.556	118	59.66	132
20	[11] 45.785	21	65.18	235	[11] 19.657	64	61.48	34	[11] 54.91	12	82.34	296	[12] 27.674	81	60.98	121
30	45.806	15	67.53	224	19.721	35	61.14	39	54.79	20	85.30	272	27.755	43	62.19	108
Juni 9	45.791	49	69.77	207	19.756	5	60.75	43	54.59	28	88.02	242	27.798	5	63.27	93
19	45.742	81	71.84	182	19.761	25	60.32	45	54.31	35	90.44	205	27.803	32	64.20	77
29	45.661	111	73.66	153	19.736	52	59.87	45	53.96	41	92.49	161	27.771	67	64.97	58
Juli 9	45.550	138	75.19	120	19.684	77	59.42	45	53.55	46	94.10	113	27.704	101	65.55	38
19	45.412	160	76.39	84	19.607	100	58.97	43	53.09	50	95.23	64	27.603	129	65.93	16
29	45.252	178	77.23	46	19.507	119	58.54	41	52.59	52	95.87	11	27.474	153	66.09	7
Aug. 8	45.074	189	77.69	7	19.388	131	58.13	38	52.07	54	95.98	41	27.321	169	66.02	29
18	44.885	193	77.76	34	19.257	138	57.75	33	51.53	54	95.57	93	27.152	177	65.73	51
28	44.692	190	77.42	74	19.119	137	57.42	27	50.99	52	94.64	144	26.975	175	65.22	71
Sept. 7	44.502	179	76.68	114	18.982	127	57.15	19	50.47	49	93.20	193	26.800	163	64.51	89
17	44.323	158	75.54	153	18.855	109	56.96	9	49.98	45	91.27	238	26.637	140	63.62	103
27	44.165	130	74.01	191	18.746	82	56.87	4	49.53	39	88.89	280	26.497	106	62.59	112
Okt. 7	44.035	91	72.10	225	18.664	47	56.91	20	49.14	31	86.09	316	26.391	62	61.47	115
17	43.944	47	69.85	257	18.617	5	57.11	37	48.83	23	82.93	347	26.329	10	60.32	112
27	43.897	4	67.28	284	18.612	43	57.48	57	48.60	13	79.46	370	26.319	47	59.20	103
Nov. 6	43.901	59	64.44	306	18.655	93	58.05	79	48.47	3	75.76	385	26.366	108	58.17	87
16	43.960	115	61.38	321	18.748	144	58.84	101	48.44	8	71.91	391	26.474	169	57.30	67
26	44.075	171	58.17	327	18.892	192	59.85	121	48.52	19	68.00	386	26.643	228	56.63	41
Dez. 6	44.246	222	54.90	325	19.084	236	61.06	139	48.71	30	64.14	371	26.871	280	56.22	14
16	44.468	268	51.65	314	19.320	273	62.45	154	49.01	40	60.43	344	27.151	325	56.08	17
26	44.736	306	48.51	291	19.593	302	63.99	165	49.41	49	56.99	306	27.476	359	56.25	46
36	45.042		45.60		19.895		65.64		49.90		53.93		27.835		56.71	
Mittl. Ort	43.261		76.60		17.460		46.27		50.36		90.40		25.224		44.77	
sec δ, tg δ	1.200		+0.664		1.013		−0.161		2.625		+2.427		1.236		−0.727	
a, a'	+2.4		−13.4		+3.2		−13.3		+0.6		−13.3		+3.8		−13.1	
b, b'	−0.03		+ 0.75		+0.01		+ 0.75		−0.11		+ 0.75		+0.03		+ 0.76	

Tag	569) γ Ursae min. AR.		569) γ Ursae min. Dekl.		568) μ Bootis AR.		568) μ Bootis Dekl.		571) ι Draconis AR.		571) ι Draconis Dekl.		572) β Coron. bor. AR.		572) β Coron. bor. Dekl.	
1931	15h 20m		+72° 4′		15h 21m		+37° 36′		15h 23m		+59° 11′		15h 24m		+29° 20′	
Jan. 1	47.59	62	26.25	279	51.893	325	50.29	283	22.199	420	67.30	293	57.929	308	19.46	274
11	48.21	69	23.46	226	52.218	350	47.46	245	22.619	464	64.37	243	58.237	330	16.72	240
21	48.90	75	21.20	166	52.568	364	45.01	198	23.083	494	61.94	186	58.567	343	14.32	200
31	49.65	78	19.54	100	52.932	368	43.03	145	23.577	507	60.08	122	58.910	345	12.32	153
Feb. 10	50.43	77	18.54	32	53.300	361	41.58	87	24.084	503	58.86	55	59.255	339	10.79	101
20	51.20	75	18.22	37	53.661	346	40.71	28	24.587	486	58.31	12	59.594	324	9.78	47
März 2	51.95	70	18.59	102	54.007	322	40.43	30	25.073	453	58.43	78	59.918	303	9.31	7
12	52.65	63	19.61	162	54.329	294	40.73	86	25.526	410	59.21	138	60.221	277	9.38	59
22	53.28	53	21.23	213	54.623	260	41.59	135	25.936	357	60.59	191	60.498	248	9.97	105
Apr. 1	53.81	43	23.36	256	54.883	223	42.94	177	26.293	296	62.50	235	60.746	215	11.02	145
11	54.24	32	25.92	287	55.106	184	44.71	211	26.589	231	64.85	270	60.961	182	12.47	179
21	54.56	20	28.79	307	55.290	144	46.82	235	26.820	163	67.55	293	61.143	146	14.26	203
Mai 1	54.76	8	31.86	316	55.434	103	49.18	251	26.983	94	70.48	305	61.289	111	16.29	219
11	54.84	4	35.02	313	55.537	62	51.69	256	27.077	26	73.53	307	61.400	75	18.48	227
20	[13] 54.80	16	38.15	300	[13] 55.599	23	54.25	253	[14] 27.103	41	76.60	297	[14] 61.475	39	20.75	227
30	54.64	27	41.15	277	55.622	16	56.78	241	27.062	104	79.57	279	61.514	5	23.02	218
Juni 9	54.37	37	43.92	247	55.606	53	59.19	223	26.958	163	82.36	252	61.519	30	25.20	203
19	54.00	45	46.39	209	55.553	88	61.42	197	26.795	217	84.88	218	61.489	62	27.23	182
29	53.55	53	48.48	166	55.465	121	63.39	167	26.578	265	87.06	179	61.427	93	29.05	157
Juli 9	53.02	60	50.14	119	55.344	150	65.06	132	26.313	306	88.85	134	61.334	121	30.62	127
19	52.42	64	51.33	69	55.194	174	66.38	94	26.007	339	90.19	87	61.213	144	31.89	94
29	51.78	68	52.02	16	55.020	194	67.32	53	25.668	364	91.06	37	61.069	164	32.83	59
Aug. 8	51.10	69	52.18	36	54.826	207	67.85	12	25.304	379	91.43	14	60.905	177	33.42	23
18	50.41	70	51.82	89	54.619	213	67.97	31	24.925	383	91.29	65	60.728	184	33.65	15
28	49.71	67	50.93	140	54.406	211	67.66	75	24.542	376	90.64	116	60.544	184	33.50	54
Sept. 7	49.04	64	49.53	189	54.195	200	66.91	117	24.166	358	89.48	164	60.360	175	32.96	92
17	48.40	59	47.64	235	53.995	180	65.74	158	23.808	328	87.84	211	60.185	157	32.04	130
27	47.81	52	45.29	277	53.815	151	64.16	197	23.480	285	85.73	254	60.028	130	30.74	166
Okt. 7	47.29	44	42.52	313	53.664	113	62.19	234	23.195	230	83.19	293	59.898	96	29.08	200
17	46.85	33	39.39	344	53.551	68	59.85	267	22.965	166	80.26	326	59.802	53	27.08	233
27	46.52	21	35.95	367	53.483	15	57.18	295	22.799	92	77.00	353	59.749	4	24.75	260
Nov. 6	46.31	8	32.28	383	53.468	42	54.23	317	22.707	11	73.47	372	59.745	49	22.15	284
16	46.23	4	28.45	389	53.510	100	51.06	333	22.696	74	69.75	383	59.794	103	19.31	301
26	46.27	18	24.56	385	53.610	159	47.73	340	22.770	158	65.92	382	59.897	157	16.30	311
Dez. 6	46.45	32	20.71	369	53.769	213	44.33	337	22.928	241	62.10	372	60.054	207	13.19	313
16	46.77	44	17.02	344	53.982	262	40.96	324	23.169	317	58.38	350	60.261	252	10.06	305
26	47.21	55	13.58	306	54.244	304	37.72	301	23.486	382	54.88	316	60.513	290	7.01	287
36	47.76		10.52		54.548		34.71		23.868		51.72		60.803		4.14	
Mittl. Ort	49.42		46.22		53.000		65.69		23.535		86.09		59.043		33.12	
sec δ, tg δ	3.250		+3.092		1.262		+0.771		1.953		+1.678		1.147		+0.562	
a, *a′*	−0.1		−12.8		+2.3		−12.8		+1.3		−12.7		+2.5		−12.5	
b, *b′*	−0.13		+ 0.77		−0.03		+ 0.77		−0.07		+ 0.78		−0.02		+ 0.78	

Tag	573) ν^1 Bootis AR.		Dekl.		575) γ Lupi AR.		Dekl.		577) γ Librae AR.		Dekl.		578) α Coron. bor. AR.		Dekl.	
1931	$15^h 28^m$		+41° 3′		$15^h 30^m$		−40° 56′		$15^h 31^m$		−14° 33′		$15^h 31^m$		+26° 56′	
Jan. 1	25.862	327	46.61	291	30.096	387	7.28	32	38.374	313	41.15	141	44.802	301	31.90	272
11	26.189	356	43.70	251	30.483	409	7.60	62	38.687	330	42.56	147	45.103	324	29.18	241
21	26.545	374	41.19	202	30.892	419	8.22	89	39.017	338	44.03	149	45.427	337	26.77	203
31	26.919	379	39.17	148	31.311	418	9.11	112	39.355	338	45.52	144	45.764	339	24.74	158
Feb. 10	27.298	374	37.69	88	31.729	410	10.23	132	39.693	330	46.96	136	46.103	335	23.16	108
20	27.672	360	36.81	26	32.139	394	11.55	147	40.023	316	48.32	122	46.438	322	22.08	56
März 2	28.032	338	36.55	33	32.533	371	13.02	159	40.339	298	49.54	106	46.760	302	21.52	3
12	28.370	309	36.88	91	32.904	346	14.61	166	40.637	277	50.60	90	47.062	279	21.49	47
22	28.679	274	37.79	142	33.250	317	16.27	171	40.914	253	51.50	72	47.341	250	21.96	94
April 1	28.953	236	39.21	186	33.567	285	17.98	172	41.167	228	52.22	54	47.591	220	22.90	134
11	29.189	195	41.07	221	33.852	252	19.70	172	41.395	201	52.76	38	47.811	187	24.24	167
21	29.384	153	43.28	247	34.104	216	21.42	169	41.596	174	53.14	24	47.998	154	25.91	193
Mai 1	29.537	110	45.75	263	34.320	179	23.11	164	41.770	145	53.38	11	48.152	119	27.84	209
11	29.647	66	48.38	268	34.499	140	24.75	157	41.915	116	53.49	2	48.271	85	29.93	219
20	^{13}29.713	24	51.06	266	^{15}34.639	100	26.32	147	^{16}42.031	85	53.51	6	^{16}48.356	50	32.12	219
30	29.737	18	53.72	253	34.739	58	27.79	135	42.116	54	53.45	13	48.406	15	34.31	212
Juni 9	29.719	58	56.25	234	34.797	17	29.14	121	42.170	22	53.32	18	48.421	19	36.43	199
19	29.661	95	58.59	209	34.814	26	30.35	103	42.192	10	53.14	22	48.402	51	38.42	181
29	29.566	131	60.68	176	34.788	66	31.38	83	42.182	40	52.92	26	48.351	82	40.23	156
Juli 9	29.435	162	62.44	140	34.722	103	32.21	62	42.142	70	52.66	28	48.269	111	41.79	129
19	29.273	188	63.84	101	34.619	137	32.83	37	42.072	95	52.38	30	48.158	135	43.08	97
29	29.085	209	64.85	58	34.482	164	33.20	11	41.977	118	52.08	33	48.023	156	44.05	65
Aug. 8	28.876	223	65.43	15	34.318	184	33.31	15	41.859	133	51.75	34	47.867	171	44.70	29
18	28.653	231	65.58	31	34.134	195	33.16	42	41.726	143	51.41	35	47.696	179	44.99	7
28	28.422	230	65.27	75	33.939	196	32.74	67	41.583	145	51.06	34	47.517	179	44.92	43
Sept. 7	28.192	219	64.52	119	33.743	184	32.07	90	41.438	138	50.72	32	47.338	172	44.49	81
17	27.973	200	63.33	162	33.559	162	31.17	109	41.300	122	50.40	27	47.166	155	43.68	118
27	27.773	170	61.71	203	33.397	128	30.08	124	41.178	96	50.13	19	47.011	131	42.50	153
Okt. 7	27.603	131	59.68	242	33.269	83	28.84	132	41.082	62	49.94	8	46.880	96	40.97	187
17	27.472	85	57.26	275	33.186	29	27.52	135	41.020	20	49.86	5	46.784	55	39.10	219
27	27.387	31	54.51	304	33.157	32	26.17	130	41.000	27	49.91	21	46.729	8	36.91	248
Nov. 6	27.356	27	51.47	327	33.189	96	24.87	119	41.027	79	50.12	41	46.721	45	34.43	271
16	27.383	89	48.20	343	33.285	162	23.68	100	41.106	130	50.53	61	46.766	98	31.72	290
26	27.472	150	44.77	349	33.447	225	22.68	78	41.236	181	51.14	81	46.864	150	28.82	302
Dez. 6	27.622	207	41.28	347	33.672	282	21.90	50	41.417	227	51.95	102	47.014	201	25.80	304
16	27.829	260	37.81	333	33.954	331	21.40	20	41.644	267	52.97	119	47.215	246	22.76	299
26	28.089	304	34.48	309	34.285	370	21.20	12	41.911	299	54.16	133	47.461	282	19.77	284
36	28.393		31.39		34.655		21.32		42.210		55.49		47.743		16.93	
Mittl. Ort	27.027		62.60		32.032		10.76		39.777		38.29		45.955		45.04	
sec δ, tg δ	1.326		+0.871		1.324		−0.867		1.033		−0.260		1.122		+0.508	
a, *a′*	+2.2		−12.3		+4.0		−12.2		+3.3		−12.1		+2.5		−12.1	
b, *b′*	−0.04		+ 0.79		+0.04		+ 0.79		+0.01		+ 0.80		−0.02		+ 0.80	

Scheinbare Sternörter 1931

Tag	582) α Serpentis AR.	Diff.	582) α Serpentis Dekl.	Diff.	583) β Serpentis AR.	Diff.	583) β Serpentis Dekl.	Diff.
1931	15h 40m		+6° 38′		15h 42m		+15° 37′	
Jan. 1	50.805	289	21.03	217	58.909	287	61.00	246
11	51.094	309	18.86	204	59.196	308	58.54	225
21	51.403	319	16.82	184	59.504	321	56.29	197
31	51.722	322	14.98	158	59.825	325	54.32	162
Feb. 10	52.044	316	13.40	126	60.150	320	52.70	123
20	52.360	305	12.14	92	60.470	309	51.47	79
März 2	52.665	289	11.22	55	60.779	293	50.68	35
12	52.954	269	10.67	19	61.072	272	50.33	9
22	53.223	246	10.48	16	61.344	249	50.42	50
Apr. 1	53.469	221	10.64	48	61.593	223	50.92	86
11	53.690	194	11.12	74	61.816	194	51.78	117
21	53.884	167	11.86	96	62.010	166	52.95	141
Mai 1	54.051	138	12.82	112	62.176	136	54.36	159
11	54.189	109	13.94	123	62.312	104	55.95	170
20	18 54.298	78	15.17	128	19 62.416	73	57.65	174
30	54.376	48	16.45	128	62.489	40	59.39	171
Juni 9	54.424	16	17.73	125	62.529	8	61.10	164
19	54.440	14	18.98	117	62.537	23	62.74	152
29	54.426	44	20.15	106	62.514	54	64.26	135
Juli 9	54.382	73	21.21	92	62.460	83	65.61	115
19	54.309	98	22.13	76	62.377	109	66.76	92
29	54.211	119	22.89	59	62.268	131	67.68	68
Aug. 8	54.092	136	23.48	41	62.137	147	68.36	41
18	53.956	147	23.89	21	61.990	158	68.77	14
28	53.809	150	24.10	1	61.832	161	68.91	15
Sept. 7	53.659	144	24.09	22	61.671	155	68.76	45
17	53.515	130	23.87	45	61.516	142	68.31	74
27	53.385	108	23.42	69	61.374	119	67.57	104
Okt. 7	53.277	77	22.73	93	61.255	88	66.53	134
17	53.200	38	21.80	118	61.167	49	65.19	162
27	53.162	6	20.62	142	61.118	4	63.57	189
Nov. 6	53.168	55	19.20	165	61.114	44	61.68	213
16	53.223	105	17.55	186	61.158	95	59.55	233
26	53.328	154	15.69	202	61.253	145	57.22	249
Dez. 6	53.482	199	13.67	214	61.398	193	54.73	257
16	53.681	240	11.53	220	61.591	234	52.16	259
26	53.921	273	9.33	219	61.825	270	49.57	252
36	54.194		7.14		62.095		47.05	
Mittl. Ort	52.060		29.53		60.137		71.66	
sec δ, tg δ	1.007		+0.116		1.038		+0.280	
a, *a'*	+2.9		−11.4		+2.8		−11.3	
b, *b'*	0.00		+ 0.82		−0.01		+ 0.83	

Tag	584) κ Serpentis AR.	Diff.	584) κ Serpentis Dekl.	Diff.	585) μ Serpentis AR.	Diff.	585) μ Serpentis Dekl.	Diff.
1931	15h 45m		+18° 20′		15h 45m		−3° 13′	
Jan. 1	36.755	286	61.19	254	59.667	291	19.49	180
11	37.041	308	58.65	231	59.958	311	21.29	176
21	37.349	321	56.34	201	60.269	321	23.05	166
31	37.670	326	54.33	164	60.590	324	24.71	150
Feb. 10	37.996	322	52.69	122	60.914	319	26.21	128
20	38.318	312	51.47	76	61.233	308	27.49	104
März 2	38.630	296	50.71	29	61.541	293	28.53	77
12	38.926	276	50.42	16	61.834	273	29.30	49
22	39.202	251	50.58	59	62.107	252	29.79	22
Apr. 1	39.453	226	51.17	96	62.359	229	30.01	4
11	39.679	197	52.13	129	62.588	203	29.97	25
21	39.876	167	53.42	155	62.791	177	29.72	44
Mai 1	40.043	136	54.97	172	62.968	149	29.28	58
11	40.179	105	56.69	184	63.117	120	28.70	69
20	19 40.284	73	58.53	187	19 63.237	91	28.01	76
30	40.357	39	60.40	184	63.328	59	27.25	79
Juni 9	40.396	6	62.24	176	63.387	28	26.46	78
19	40.402	26	64.00	163	63.415	3	25.68	76
29	40.376	57	65.63	144	63.412	34	24.92	71
Juli 9	40.319	86	67.07	122	63.378	64	24.21	65
19	40.233	113	68.29	98	63.314	90	23.56	57
29	40.120	135	69.27	71	63.224	113	22.99	48
Aug. 8	39.985	152	69.98	42	63.111	131	22.51	39
18	39.833	163	70.40	13	62.980	142	22.12	27
28	39.670	166	70.53	19	62.838	147	21.85	16
Sept. 7	39.504	161	70.34	49	62.691	142	21.69	3
17	39.343	148	69.85	82	62.549	128	21.66	12
27	39.195	125	69.03	113	62.421	107	21.78	28
Okt. 7	39.070	94	67.90	144	62.314	75	22.06	46
17	38.976	55	66.46	174	62.239	36	22.52	65
27	38.921	11	64.72	201	62.203	8	23.17	86
Nov. 6	38.910	38	62.71	226	62.211	56	24.03	107
16	38.948	90	60.45	247	62.267	107	25.10	126
26	39.038	141	57.98	261	62.374	157	26.36	145
Dez. 6	39.179	189	55.37	269	62.531	202	27.81	161
16	39.368	231	52.68	269	62.733	242	29.42	171
26	39.599	267	49.99	261	62.975	275	31.13	178
36	39.866		47.38		63.250		32.91	
Mittl. Ort	37.989		72.48		61.010		13.26	
sec δ, tg δ	1.054		+0.332		1.002		−0.056	
a, *a'*	+2.7		−11.1		+3.1		−11.1	
b, *b'*	−0.01		+ 0.83		0.00		+ 0.83	

Tag	590) ζ Ursae min.				588) ε Serpentis				589) β Triang. austr.				593) ε Coron. bor.			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	15h 46m		+77° 59′		15h 47m		+4° 40′		15h 48m		−63° 13′		15h 54m		+27° 4′	
Jan. 1	25.73	76	67.94	294	21.188	286	54.97	209	59.36	57	4.94	79	42.511	283	22.56	277
11	26.49	89	65.00	244	21.474	306	52.88	198	59.93	61	4.15	37	42.794	310	19.79	250
21	27.38	101	62.56	187	21.780	317	50.90	181	60.54	64	3.78	6	43.104	326	17.29	213
31	28.39	107	60.69	124	22.097	321	49.09	156	61.18	65	3.84	48	43.430	334	15.16	170
Feb. 10	29.46	109	59.45	57	22.418	316	47.53	127	61.83	65	4.32	88	43.764	334	13.46	120
20	30.55	109	58.88	11	22.734	307	46.26	94	62.48	63	5.20	125	44.098	326	12.26	68
März 2	31.64	104	58.99	78	23.041	291	45.32	60	63.11	61	6.45	157	44.424	310	11.58	15
12	32.68	95	59.77	139	23.332	272	44.72	25	63.72	57	8.02	185	44.734	291	11.43	37
22	33.63	84	61.16	194	23.604	250	44.47	9	64.29	53	9.87	210	45.025	266	11.80	85
Apr. 1	34.47	69	63.10	240	23.854	226	44.56	39	64.82	48	11.97	230	45.291	238	12.65	129
11	35.16	53	65.50	276	24.080	200	44.95	65	65.30	42	14.27	245	45.529	208	13.94	164
21	35.69	35	68.26	301	24.280	174	45.60	87	65.72	36	16.72	256	45.737	176	15.58	193
Mai 1	36.04	18	71.27	314	24.454	146	46.47	103	66.08	30	19.28	261	45.913	142	17.51	212
11	36.22	1	74.41	316	24.600	116	47.50	114	66.38	23	21.89	262	46.055	108	19.63	224
20*)	[19] 36.21	20	77.57	308	[20] 24.716	86	48.64	120	[20] 66.61	16	24.51	258	[22] 46.163	72	21.87	228
30	36.01	36	80.65	291	24.802	55	49.84	121	66.77	8	27.09	248	46.235	36	24.15	224
Juni 9	35.65	52	83.56	264	24.857	24	51.05	118	66.85	0	29.57	232	46.271	0	26.39	212
19	35.13	66	86.20	230	24.881	8	52.23	111	66.85	6	31.89	211	46.271	35	28.51	196
29	34.47	79	88.50	190	24.873	39	53.34	101	66.79	14	34.00	184	46.236	69	30.47	173
Juli 9	33.68	90	90.40	145	24.834	68	54.35	89	66.65	21	35.84	152	46.167	100	32.20	146
19	32.78	99	91.85	97	24.766	94	55.24	75	66.44	27	37.36	117	46.067	129	33.66	116
29	31.79	104	92.82	47	24.672	117	55.99	59	66.17	31	38.53	76	45.938	153	34.82	83
Aug. 8	30.75	109	93.29	6	24.555	134	56.58	43	65.86	35	39.29	33	45.785	171	35.65	48
18	29.66	110	93.23	58	24.421	146	57.01	24	65.51	37	39.62	11	45.614	184	36.13	12
28	28.56	109	92.65	109	24.275	150	57.25	5	65.14	37	39.51	55	45.430	188	36.25	26
Sept. 7	27.47	106	91.56	159	24.125	145	57.30	16	64.77	36	38.96	98	45.242	185	35.99	64
17	26.41	99	89.97	206	23.980	132	57.14	37	64.41	33	37.98	138	45.057	171	35.35	101
27	25.42	90	87.91	250	23.848	111	56.77	60	64.08	27	36.60	173	44.886	149	34.34	138
Okt. 7	24.52	78	85.41	289	23.737	80	56.17	82	63.81	20	34.87	200	44.737	118	32.96	173
17	23.74	65	82.52	323	23.657	42	55.35	106	63.61	12	32.87	220	44.619	79	31.23	207
27	23.09	49	79.29	350	23.615	1	54.29	129	63.49	3	30.67	230	44.540	33	29.16	237
Nov. 6	22.60	31	75.79	369	23.616	50	53.00	152	63.46	8	28.37	232	44.507	18	26.79	263
16	22.29	11	72.10	380	23.666	100	51.48	172	63.54	19	26.05	223	44.525	71	24.16	284
26	22.18	8	68.30	381	23.766	149	49.76	190	63.73	28	23.82	205	44.596	125	21.32	297
Dez. 6	22.26	28	64.49	371	23.915	195	47.86	203	64.01	38	21.77	178	44.721	176	18.35	303
16	22.54	47	60.78	349	24.110	235	45.83	209	64.39	47	19.99	145	44.897	223	15.32	301
26	23.01	66	57.29	317	24.345	269	43.74	210	64.86	53	18.54	108	45.120	262	12.31	289
36	23.67		54.12		24.614		41.64		65.39		17.46		45.382		9.42	
Mittl. Ort	28.94		87.36		22.482		63.13		62.74		10.81		43.788		35.69	
sec δ, tg δ	4.813		+4.708		1.003		+0.082		2.219		−1.981		1.123		+0.511	
a, *a′*	−2.2		−11.0		+3.0		−11.0		+5.3		−10.8		+2.5		−10.4	
b, *b′*	−0.17		+ 0.84		0.00		+ 0.84		+0.07		+ 0.84		−0.02		+ 0.85	

*) Bei Stern 593) lies Mai 21

Scheinbare Sternörter 1931

Tag	594) δ Scorpii				598) ϑ Draconis				597) β Scorpii				603) δ Ophiuchi			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	15h 56m		−22° 25′		16h 0m		+58° 44′		16h 1m		−19° 37′		16h 10m		−3° 31′	
Jan. 1	13.358	312	38.89	93	33.905	362	38.99	319	23.675	304	8.03	103	42.214	276	11.83	171
11	13.670	334	39.82	105	34.267	416	35.80	276	23.979	325	9.06	112	42.490	298	13.54	168
21	14.004	346	40.87	114	34.683	456	33.04	223	24.304	338	10.18	118	42.788	312	15.22	159
31	14.350	350	42.01	118	35.139	481	30.81	163	24.642	343	11.36	119	43.100	319	16.81	143
Feb. 10	14.700	347	43.19	118	35.620	492	29.18	98	24.985	341	12.55	117	43.419	319	18.24	123
20	15.047	337	44.37	114	36.112	487	28.20	30	25.326	332	13.72	109	43.738	312	19.47	98
März 2	15.384	322	45.51	107	36.599	467	27.90	37	25.658	318	14.81	99	44.050	301	20.45	72
12	15.706	304	46.58	98	37.066	437	28.27	101	25.976	301	15.80	88	44.351	285	21.17	44
22	16.010	283	47.56	88	37.503	394	29.28	159	26.277	281	16.68	75	44.636	268	21.61	17
Apr. 1	16.293	259	48.44	77	37.897	343	30.87	211	26.558	258	17.43	62	44.904	246	21.78	8
11	16.552	234	49.21	67	38.240	286	32.98	252	26.816	234	18.05	50	45.150	223	21.70	30
21	16.786	207	49.88	57	38.526	223	35.50	284	27.050	208	18.55	40	45.373	199	21.40	49
Mai 1	16.993	179	50.45	49	38.749	156	38.34	304	27.258	180	18.95	30	45.572	172	20.91	64
11	17.172	148	50.94	41	38.905	89	41.38	314	27.438	150	19.25	23	45.744	144	20.27	74
21	17.320	115	51.35	34	38.994	21	44.52	313	27.588	118	19.48	16	45.888	114	19.53	81
30	22 17.435	81	51.69	28	23 39.015	45	47.65	302	23 27.706	85	19.64	10	26 46.002	82	18.72	83
Juni 9	17.516	46	51.97	22	38.970	109	50.67	283	27.791	50	19.74	6	46.084	49	17.89	83
19	17.562	11	52.19	16	38.861	171	53.50	255	27.841	15	19.80	2	46.133	16	17.06	80
29	17.573	25	52.35	10	38.690	226	56.05	220	27.856	21	19.82	2	46.149	18	16.26	75
Juli 9	17.548	58	52.45	3	38.464	275	58.25	181	27.835	54	19.80	7	46.131	49	15.51	68
19	17.490	90	52.48	4	38.189	318	60.06	137	27.781	85	19.73	12	46.082	80	14.83	59
29	17.400	117	52.44	13	37.871	353	61.43	89	27.696	113	19.61	17	46.002	106	14.24	50
Aug. 8	17.283	138	52.31	20	37.518	379	62.32	39	27.583	134	19.44	22	45.896	127	13.74	41
18	17.145	153	52.11	28	37.139	393	62.71	12	27.449	149	19.22	27	45.769	143	13.33	29
28	16.992	158	51.83	36	36.746	397	62.59	63	27.300	156	18.95	32	45.626	151	13.04	17
Sept. 7	16.834	155	51.47	41	36.349	388	61.96	114	27.144	153	18.63	35	45.475	151	12.87	5
17	16.679	141	51.06	45	35.961	368	60.82	164	26.991	141	18.28	35	45.324	140	12.82	9
27	16.538	118	50.61	46	35.593	334	59.18	210	26.850	119	17.93	34	45.184	122	12.91	25
Okt. 7	16.420	84	50.15	43	35.259	288	57.08	254	26.731	87	17.59	30	45.062	93	13.16	42
17	16.336	43	49.72	36	34.971	229	54.54	292	26.644	47	17.29	22	44.969	57	13.58	60
27	16.293	5	49.36	26	34.742	161	51.62	326	26.597	0	17.07	10	44.912	14	14.18	79
Nov. 6	16.298	58	49.10	13	34.581	84	48.36	352	26.597	51	16.97	4	44.898	33	14.97	98
16	16.356	113	48.97	5	34.497	1	44.84	371	26.648	105	17.01	21	44.931	83	15.95	118
26	16.469	166	49.02	24	34.496	83	41.13	379	26.753	158	17.22	39	45.014	133	17.13	136
Dez. 6	16.635	215	49.26	44	34.579	167	37.34	376	26.911	206	17.61	58	45.147	179	18.49	150
16	16.850	259	49.70	63	34.746	248	33.58	363	27.117	250	18.19	77	45.326	222	19.99	162
26	17.109	295	50.33	81	34.994	320	29.95	338	27.367	286	18.96	92	45.548	258	21.61	168
36	17.404		51.14		35.314		26.57		27.653		19.88		45.806		23.29	
Mittl. Ort	14.965		36.74		35.622		56.70		25.256		5.00		43.651		4.94	
sec δ, tg δ	1.082		−0.413		1.928		+1.648		1.062		−0.356		1.002		−0.062	
a, *a′*	+3.5		−10.3		+1.2		−10.0		+3.5		−9.9		+3.1		−9.2	
b, *b′*	+0.01		+ 0.86		−0.05		+ 0.87		+0.01		+0.87		0.00		+0.89	

Tag	606) 19 Ursae min.				604) γ^2 Normae				*605) ε Ophiuchi				608) τ Herculis			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$16^h 12^m$		+76° 2′		$16^h 14^m$		−49° 59′		$16^h 14^m$		−4° 31′		$16^h 17^m$		+46° 28′	
	s		″		s		″		s		″		s		″	
Jan. 1	42.57	58	48.88	316	37.534	404	15.06	53	38.623	274	39.45	165	38.375	291	20.77	321
11	43.15	72	45.72	273	37.938	439	14.53	21	38.897	297	41.10	163	38.666	332	17.56	286
21	43.87	82	42.99	220	38.377	463	14.32	10	39.194	312	42.73	154	38.998	363	14.70	240
31	44.69	90	40.79	160	38.840	474	14.42	40	39.506	319	44.27	139	39.361	383	12.30	186
Feb. 10	45.59	94	39.19	94	39.314	477	14.82	68	39.825	319	45.66	121	39.744	392	10.44	127
20	46.53	95	38.25	26	39.791	470	15.50	93	40.144	314	46.87	97	40.136	391	9.17	63
März 2	47.48	93	37.99	42	40.261	455	16.43	115	40.458	302	47.84	72	40.527	380	8.54	1
12	48.41	87	38.41	106	40.716	435	17.58	134	40.760	288	48.56	45	40.907	359	8.55	63
22	49.28	79	39.47	166	41.151	410	18.92	150	41.048	270	49.01	19	41.266	332	9.18	122
Apr. 1	50.07	68	41.13	216	41.561	379	20.42	163	41.318	250	49.20	6	41.598	298	10.40	175
11	50.75	55	43.29	259	41.940	346	22.05	173	41.568	227	49.14	27	41.896	259	12.15	218
21	51.30	41	45.88	290	42.286	308	23.78	181	41.795	203	48.87	46	42.155	217	14.33	252
Mai 1	51.71	26	48.78	310	42.594	266	25.59	186	41.998	177	48.41	59	42.372	170	16.85	277
11	51.97	10	51.88	320	42.860	221	27.45	187	42.175	149	47.82	70	42.542	123	19.62	292
21	52.07	6	55.08	319	43.081	172	29.32	186	42.324	119	47.12	77	42.665	74	22.54	296
30	52.01	21	58.27	307	43.253	122	31.18	181	42.443	87	46.35	80	42.739	24	25.50	291
Juni 9	51.80	35	61.34	287	43.375	68	32.99	172	42.530	53	45.55	79	42.763	25	28.41	278
19	51.45	48	64.21	259	43.443	13	34.71	159	42.583	20	44.76	77	42.738	73	31.19	257
29	50.97	61	66.80	223	43.456	40	36.30	141	42.603	14	43.99	72	42.665	119	33.76	228
Juli 9	50.36	71	69.03	183	43.416	92	37.71	120	42.589	47	43.27	65	42.546	160	36.04	194
19	49.65	81	70.86	137	43.324	140	38.91	95	42.542	77	42.62	57	42.386	199	37.98	155
29	48.84	87	72.23	89	43.184	182	39.86	67	42.465	104	42.05	49	42.187	230	39.53	114
Aug. 8	47.97	92	73.12	39	43.002	214	40.53	36	42.361	127	41.56	40	41.957	256	40.67	68
18	47.05	96	73.51	14	42.788	238	40.89	3	42.234	142	41.16	30	41.701	273	41.35	21
28	46.09	96	73.37	66	42.550	249	40.92	31	42.092	151	40.86	18	41.428	281	41.56	27
Sept. 7	45.13	94	72.71	117	42.301	246	40.61	64	41.941	151	40.68	7	41.147	280	41.29	75
17	44.19	91	71.54	167	42.055	230	39.97	94	41.790	142	40.61	5	40.867	267	40.54	122
27	43.28	84	69.87	213	41.825	200	39.03	121	41.648	123	40.66	21	40.600	244	39.32	169
Okt. 7	42.44	75	67.74	257	41.625	155	37.82	144	41.525	95	40.87	36	40.356	210	37.63	212
17	41.69	64	65.17	295	41.470	99	36.38	160	41.430	60	41.23	54	40.146	167	35.51	252
27	41.05	51	62.22	328	41.371	33	34.78	168	41.370	17	41.77	72	39.979	114	32.99	288
Nov. 6	40.54	36	58.94	353	41.338	39	33.10	169	41.353	30	42.49	91	39.865	55	30.11	318
16	40.18	20	55.41	371	41.377	115	31.41	163	41.383	80	43.40	110	39.810	10	26.93	341
26	39.98	3	51.70	379	41.492	190	29.78	149	41.463	130	44.50	128	39.820	75	23.52	355
Dez. 6	39.95	15	47.91	376	41.682	260	28.29	129	41.593	178	45.78	143	39.895	141	19.97	360
16	40.10	33	44.15	362	41.942	324	27.00	104	41.771	219	47.21	155	40.036	202	16.37	353
26	40.43	48	40.53	336	42.266	377	25.96	74	41.990	256	48.76	161	40.238	259	12.84	335
36	40.91		37.17		42.643		25.22		42.246		50.37		40.497		9.49	
Mittl. Ort	45.98		67.15		40.007		16.92		40.081		32.66		39.941		36.59	
sec δ, tg δ	4.149		+4.026		1.555		−1.191		1.003		−0.079		1.452		+1.053	
a, *a′*	−1.7		−9.0		+4.5		−8.9		+3.2		−8.9		+1.8		−8.7	
b, *b′*	−0.12		+0.89		+0.04		+0.90		0.00		+0.90		−0.03		+0.90	

Tag	609) γ Herculis				611) γ Apodis				615) η Draconis				616) α Scorpii			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$16^h\ 18^m$		$+19°\ 18'$		$16^h\ 22^m$		$-78°\ 44'$		$16^h\ 23^m$		$+61°\ 39'$		$16^h\ 25^m$		$-26°\ 16'$	
Jan. 1	$51^s.116$	260	$38''.81$	258	$40^s.66$	108	$40''.30$	179	$1^s.07$	34	$55''.07$	333	$8^s.608$	301	$52''.61$	55
11	51.376	288	36.23	239	41.74	121	38.51	134	1.41	41	51.74	294	8.909	326	53.16	68
21	51.664	306	33.84	210	42.95	131	37.17	87	1.82	47	48.80	243	9.235	344	53.84	80
31	51.970	318	31.74	173	44.26	138	36.30	38	2.29	50	46.37	186	9.579	354	54.64	87
Feb. 10	52.288	320	30.01	132	45.64	141	35.92	11	2.79	52	44.51	122	9.933	356	55.51	90
20	52.608	316	28.69	86	47.05	140	36.03	58	3.31	52	43.29	54	10.289	351	56.41	91
März 2	52.924	306	27.83	38	48.45	138	36.61	103	3.83	51	42.75	14	10.640	341	57.32	89
12	53.230	291	27.45	9	49.83	133	37.64	145	4.34	49	42.89	81	10.981	327	58.21	85
22	53.521	272	27.54	54	51.16	125	39.09	183	4.83	45	43.70	142	11.308	309	59.06	79
Apr. 1	53.793	249	28.08	96	52.41	115	40.92	218	5.28	40	45.12	196	11.617	290	59.85	73
11	54.042	225	29.04	131	53.56	103	43.10	246	5.68	34	47.08	241	11.907	267	60.58	67
21	54.267	197	30.35	159	54.59	90	45.56	270	6.02	27	49.49	278	12.174	241	61.25	62
Mai 1	54.464	168	31.94	182	55.49	75	48.26	289	6.29	20	52.27	303	12.415	213	61.87	56
11	54.632	136	33.76	195	56.24	59	51.15	300	6.49	13	55.30	318	12.628	182	62.43	52
21	54.768	103	35.71	202	56.83	41	54.15	306	6.62	5	58.48	321	12.810	150	62.95	48
30	28 54.871	69	37.73	202	29 57.24	23	57.21	305	29 6.67	2	61.69	314	29 12.960	113	63.43	45
Juni 9	54.940	33	39.75	195	57.47	5	60.26	296	6.65	9	64.83	299	13.073	76	63.88	41
19	54.973	2	41.70	183	57.52	14	63.22	281	6.56	17	67.82	275	13.149	37	64.29	36
29	54.971	37	43.53	166	57.38	31	66.03	257	6.39	23	70.57	243	13.186	2	64.65	31
Juli 9	54.934	70	45.19	145	57.07	48	68.60	227	6.16	29	73.00	206	13.184	41	64.96	24
19	54.864	101	46.64	120	56.59	64	70.87	189	5.87	34	75.06	163	13.143	77	65.20	16
29	54.763	128	47.84	94	55.95	76	72.76	147	5.53	39	76.69	117	13.066	109	65.36	7
Aug. 8	54.635	151	48.78	64	55.19	86	74.23	98	5.14	42	77.86	68	12.957	136	65.43	3
18	54.484	166	49.42	33	54.33	93	75.21	46	4.72	44	78.54	16	12.821	156	65.40	13
28	54.318	175	49.75	2	53.40	96	75.67	8	4.28	45	78.70	35	12.665	167	65.27	24
Sept. 7	54.143	176	49.77	31	52.44	95	75.59	62	3.83	45	78.35	87	12.498	169	65.03	35
17	53.967	167	49.46	64	51.49	90	74.97	115	3.38	43	77.48	138	12.329	159	64.68	42
27	53.800	149	48.82	97	50.59	80	73.82	164	2.95	40	76.10	186	12.170	140	64.26	49
Okt. 7	53.651	122	47.85	130	49.79	67	72.18	208	2.55	36	74.24	233	12.030	109	63.77	52
17	53.529	87	46.55	161	49.12	50	70.10	243	2.19	29	71.91	275	11.921	70	63.25	52
27	53.442	44	44.94	190	48.62	30	67.67	269	1.00	23	69.16	311	11.851	23	62.73	47
Nov. 6	53.398	4	43.04	217	48.32	9	64.98	285	1.67	15	66.05	341	11.828	29	62.26	38
16	53.402	54	40.87	239	48.23	15	62.13	290	1.52	6	62.64	364	11.857	85	61.88	26
26	53.456	105	38.48	257	48.38	38	59.23	284	1.46	3	59.00	377	11.942	140	61.62	11
Dez. 6	53.561	154	35.91	267	48.76	60	56.39	267	1.49	12	55.23	379	12.082	193	61.51	7
16	53.715	200	33.24	270	49.36	80	53.72	240	1.61	21	51.44	371	12.275	240	61.58	25
26	53.915	240	30.54	264	50.16	99	51.32	205	1.82	30	47.73	349	12.515	280	61.83	41
36	54.155		27.90		51.15		49.27		2.12		44.24		12.795		62.24	
Mittl. Ort	52.498		50.40		48.54		44.56		3.14		72.16		10.370		49.69	
sec δ, tg δ	1.060		+0.350		5.124		−5.025		2.107		+1.855		1.115		−0.494	
a, a'	+2.6		−8.6		+9.2		−8.2		+0.8		−8.2		+3.7		−8.1	
b, b'	−0.01		+0.90		+0.14		+0.91		−0.05		+0.91		+0.01		+0.92	

Tag	618) β Herculis AR.	Δ	618) β Herculis Dekl.	Δ	619) A Draconis AR.	Δ	619) A Draconis Dekl.	Δ	621) σ Herculis AR.	Δ	621) σ Herculis Dekl.	Δ	622) ζ Ophiuchi AR.	Δ	622) ζ Ophiuchi Dekl.	Δ
1931	16h 27m		+21° 37′		16h 28m		+68° 54′		16h 31m		+42° 34′		16h 33m		−10° 25′	
Jan. 1	13.748	253	67.58	266	3.89	40	45.59	334	51.085	265	27.35	320	19.861	267	49.86	130
11	14.001	283	64.92	246	4.29	49	42.25	294	51.350	307	24.15	289	20.128	292	51.16	131
21	14.284	303	62.46	216	4.78	56	39.31	244	51.657	338	21.26	248	20.420	310	52.47	129
31	14.587	316	60.30	179	5.34	62	36.87	185	51.995	359	18.78	197	20.730	320	53.76	120
Feb. 10	14.903	321	58.51	136	5.96	65	35.02	121	52.354	369	16.81	140	21.050	322	54.96	107
20	15.224	319	57.15	88	6.61	66	33.81	53	52.723	371	15.41	80	21.372	320	56.03	90
März 2	15.543	310	56.27	38	7.27	66	33.28	15	53.094	364	14.61	16	21.692	312	56.93	72
12	15.853	296	55.89	11	7.93	62	33.43	82	53.458	348	14.45	45	22.004	301	57.65	51
22	16.149	278	56.00	58	8.55	57	34.25	143	53.806	325	14.90	104	22.305	285	58.16	30
Apr. 1	16.427	257	56.58	101	9.12	51	35.68	199	54.131	297	15.94	156	22.590	267	58.46	10
11	16.684	232	57.59	138	9.63	42	37.67	245	54.428	264	17.50	201	22.857	247	58.56	7
21	16.916	205	58.97	169	10.05	34	40.12	281	54.692	226	19.51	239	23.104	224	58.49	23
Mai 1	17.121	174	60.66	192	10.39	25	42.93	306	54.918	185	21.90	265	23.328	199	58.26	34
11	17.295	143	62.58	207	10.64	14	45.99	321	55.103	141	24.55	282	23.527	171	57.92	43
21	17.438	110	64.65	214	10.78	4	49.20	325	55.244	96	27.37	290	23.698	141	57.49	48
30*)	[30] 17.548	74	66.79	215	[30] 10.82	6	52.45	318	[31] 55.340	49	30.27	288	[31] 23.839	109	57.01	51
Juni 9	17.622	38	68.94	209	10.76	16	55.63	303	55.389	3	33.15	278	23.948	74	56.50	52
19	17.660	1	71.03	196	10.60	25	58.66	278	55.392	43	35.93	260	24.022	38	55.98	50
29	17.661	35	72.99	178	10.35	34	61.44	246	55.349	88	38.53	234	24.060	3	55.48	48
Juli 9	17.626	69	74.77	156	10.01	42	63.90	209	55.261	130	40.87	203	24.063	32	55.00	44
19	17.557	102	76.33	131	9.59	48	65.99	166	55.131	168	42.90	168	24.031	66	54.56	40
29	17.455	130	77.64	102	9.11	54	67.65	119	54.963	202	44.58	128	23.965	97	54.16	36
Aug. 8	17.325	154	78.66	71	8.57	59	68.84	69	54.761	229	45.86	85	23.868	122	53.80	31
18	17.171	172	79.37	39	7.98	61	69.53	18	54.532	248	46.71	40	23.746	141	53.49	26
28	16.999	181	79.76	5	7.37	62	69.71	35	54.284	259	47.11	6	23.605	153	53.23	20
Sept. 7	16.818	183	79.81	29	6.75	62	69.36	87	54.025	261	47.05	52	23.452	156	53.03	15
17	16.635	175	79.52	63	6.13	60	68.49	138	53.764	252	46.53	99	23.296	149	52.88	7
27	16.460	159	78.89	99	5.53	57	67.11	187	53.512	233	45.54	145	23.147	134	52.81	1
Okt. 7	16.301	132	77.90	133	4.96	51	65.24	233	53.279	203	44.09	189	23.013	107	52.82	11
17	16.169	98	76.57	166	4.45	43	62.91	276	53.076	164	42.20	230	22.906	72	52.93	23
27	16.071	56	74.91	196	4.02	34	60.15	312	52.912	115	39.90	267	22.834	31	53.16	38
Nov. 6	16.015	8	72.95	224	3.68	25	57.03	343	52.797	60	37.23	298	22.803	16	53.54	53
16	16.007	42	70.71	247	3.43	14	53.60	364	52.737	1	34.25	324	22.819	67	54.07	69
26	16.049	94	68.24	265	3.29	2	49.96	378	52.736	62	31.01	340	22.886	117	54.76	86
Dez. 6	16.143	144	65.59	276	3.27	11	46.18	380	52.798	124	27.61	349	23.003	165	55.62	101
16	16.287	191	62.83	279	3.38	22	42.38	371	52.922	182	24.12	346	23.168	209	56.63	114
26	16.478	232	60.04	273	3.60	33	38.67	350	53.104	236	20.66	332	23.377	248	57.77	124
36	16.710		57.31		3.93		35.17		53.340		17.34		23.625		59.01	
Mittl. Ort	15.167		79.55		6.54		62.87		52.680		42.28		21.427		43.62	
sec δ, tg δ	1.076		+0.397		2.780		+2.594		1.358		+0.919		1.017		−0.184	
a, a'	+2.6		−7.9		−0.1		−7.8		+1.9		−7.5		+3.3		−7.4	
b, b'	−0.01		+0.92		−0.07		+0.92		−0.02		+0.93		0.00		+0.93	

*) Bei Stern 621) und 622) lies Mai 31

Scheinbare Sternörter 1931

Tag	626) η Herculis AR.		626) η Herculis Dekl.		625) α Triang. austr. AR.		625) α Triang. austr. Dekl.	
1931	$16^h 40^m$		$+39° 2'$		$16^h 41^m$		$-68° 54'$	
Jan. 1	30.198	251	55.06	317	15.96	60	11.67	164
11	30.449	291	51.89	288	16.56	68	10.03	127
21	30.740	322	49.01	249	17.24	74	8.76	87
31	31.062	342	46.52	202	17.98	77	7.89	45
Feb. 10	31.404	354	44.50	148	18.75	80	7.44	3
20	31.758	356	43.02	89	19.55	80	7.41	$\overline{37}$
März 2	32.114	351	42.13	28	20.35	79	7.78	76
12	32.465	338	41.85	$\overline{33}$	21.14	76	8.54	113
22	32.803	319	42.18	91	21.90	73	9.67	146
April 1	33.122	293	43.09	143	22.63	69	11.13	176
11	33.415	263	44.52	188	23.32	63	12.89	202
21	33.678	230	46.40	226	23.95	56	14.91	225
Mai 1	33.908	192	48.66	253	24.51	49	17.16	242
11	34.100	152	51.19	273	25.00	41	19.58	255
21	34.252	109	53.92	281	25.41	31	22.13	262
31	[2] 34.361	66	56.73	282	[2] 25.72	22	24.75	264
Juni 9	34.427	21	59.55	273	25.94	12	27.39	260
19	34.448	$\overline{23}$	62.28	257	26.06	3	29.99	249
29	34.425	67	64.85	234	26.09	$\overline{8}$	32.48	232
Juli 9	34.358	109	67.19	205	26.01	18	34.80	207
19	34.249	147	69.24	172	25.83	27	36.87	177
29	34.102	180	70.96	134	25.56	35	38.64	142
Aug. 8	33.922	208	72.30	94	25.21	41	40.06	100
18	33.714	229	73.24	51	24.80	46	41.06	56
28	33.485	241	73.75	6	24.34	49	41.62	8
Sept. 7	33.244	245	73.81	$\overline{39}$	23.85	49	41.70	$\overline{41}$
17	32.999	238	73.42	85	23.36	48	41.29	88
27	32.761	221	72.57	129	22.88	43	40.41	132
Okt. 7	32.540	194	71.28	173	22.45	36	39.09	172
17	32.346	157	69.55	213	22.09	28	37.37	207
27	32.189	112	67.42	250	21.81	17	35.30	231
Nov. 6	32.077	59	64.92	282	21.64	5	32.99	248
16	32.018	3	62.10	309	21.59	$\overline{7}$	30.51	255
26	32.015	$\overline{56}$	59.01	328	21.66	21	27.96	251
Dez. 6	32.071	116	55.73	338	21.87	33	25.45	238
16	32.187	172	52.35	337	22.20	44	23.07	217
26	32.359	223	48.98	326	22.64	55	20.90	187
36	32.582		45.72		23.19		19.03	
Mittl. Ort	31.794		69.31		20.40		13.45	
sec δ, tg δ	1.288		+0.811		2.778		−2.592	
a, *a'*	+2.1		−6.8		+6.3		−6.7	
b, *b'*	−0.02		+0.94		+0.06		+0.94	

Tag	627) Grb 2377 AR.		627) Grb 2377 Dekl.		628) ε Scorpii AR.		628) ε Scorpii Dekl.	
1931	$16^h 43^m$		$+56° 53'$		$16^h 45^m$		$-34° 10'$	
Jan. 1	57.127	285	60.52	341	39.382	303	13.31	2
11	57.412	346	57.11	308	39.685	335	13.29	$\overline{16}$
21	57.758	395	54.03	262	40.020	357	13.45	33
31	58.153	431	51.41	209	40.377	372	13.78	47
Feb. 10	58.584	455	49.32	148	40.749	377	14.25	59
20	59.039	464	47.84	82	41.126	377	14.84	67
März 2	59.503	460	47.02	14	41.503	371	15.51	74
12	59.963	444	46.88	$\overline{52}$	41.874	359	16.25	79
22	60.407	416	47.40	115	42.233	344	17.04	81
April 1	60.823	379	48.55	172	42.577	326	17.85	83
11	61.202	334	50.27	221	42.903	303	18.68	85
21	61.536	281	52.48	262	43.206	279	19.53	85
Mai 1	61.817	224	55.10	291	43.485	249	20.38	87
11	62.041	162	58.01	311	43.734	217	21.25	87
21	62.203	98	61.12	320	43.951	182	22.12	87
31	[3] 62.301	33	64.32	319	[3] 44.133	142	22.99	86
Juni 9	62.334	$\overline{33}$	67.51	308	44.275	101	23.85	83
19	62.301	96	70.59	288	44.376	57	24.68	80
29	62.205	156	73.47	262	44.433	12	25.48	73
Juli 9	62.049	214	76.09	228	44.445	$\overline{31}$	26.21	64
19	61.835	264	78.37	190	44.414	73	26.85	54
29	61.571	308	80.27	146	44.341	111	27.39	40
Aug. 8	61.263	343	81.73	99	44.230	143	27.79	25
18	60.920	370	82.72	50	44.087	169	28.04	8
28	60.550	385	83.22	$\overline{1}$	43.918	185	28.12	$\overline{10}$
Sept. 7	60.165	389	83.21	52	43.733	189	28.02	28
17	59.776	380	82.69	103	43.544	184	27.74	45
27	59.396	357	81.66	153	43.360	166	27.29	60
Okt. 7	59.039	322	80.13	201	43.194	137	26.69	72
17	58.717	275	78.12	246	43.057	97	25.97	80
27	58.442	217	75.66	285	42.960	48	25.17	83
Nov. 6	58.225	148	72.81	320	42.912	$\overline{6}$	24.34	82
16	58.077	73	69.61	346	42.918	65	23.52	76
26	58.004	$\overline{6}$	66.15	365	42.983	125	22.76	65
Dez. 6	58.010	88	62.50	373	43.108	182	22.11	51
16	58.098	168	58.77	369	43.290	234	21.60	34
26	58.266	241	55.08	354	43.524	279	21.26	16
36	58.507		51.54		43.803		21.10	
Mittl. Ort	59.173		76.36		41.360		10.48	
sec δ, tg δ	1.831		+1.534		1.209		−0.679	
a, *a'*	+1.1		−6.5		+3.9		−6.4	
b, *b'*	−0.03		+0.95		+0.01		+0.95	

Tag	629) 49 Herculis AR.		629) 49 Herculis Dekl.		630) ζ^2 Scorpii AR.		630) ζ^2 Scorpii Dekl.	
1931	$16^h\,48^m$		$+15°\,4'$		$16^h\,49^m$		$-42°\,14'$	
Jan. 1	54.816	236	68.33	242	41.050	329	43.70	48
11	55.052	266	65.91	228	41.379	365	43.22	25
21	55.318	287	63.63	204	41.744	392	42.97	2
31	55.605	303	61.59	174	42.136	409	42.95	18
Feb. 10	55.908	310	59.85	137	42.545	416	43.13	37
20	56.218	311	58.48	95	42.961	418	43.50	55
März 2	56.529	307	57.53	51	43.379	412	44.05	69
12	56.836	297	57.02	7	43.791	400	44.74	83
22	57.133	283	56.95	37	44.191	385	45.57	94
Apr. 1	57.416	266	57.32	77	44.576	364	46.51	103
11	57.682	246	58.09	112	44.940	340	47.54	111
21	57.928	222	59.21	142	45.280	312	48.65	118
Mai 1	58.150	195	60.63	165	45.592	280	49.83	124
11	58.345	167	62.28	181	45.872	244	51.07	128
21	58.512	135	64.09	190	46.116	203	52.35	130
31	58.647	101	65.99	192	46.319	160	53.65	131
Juni 9	4 58.748	66	67.91	189	4 46.479	112	54.96	128
19	58.814	29	69.80	180	46.591	63	56.24	123
29	58.843	8	71.60	167	46.654	13	57.47	115
Juli 9	58.835	43	73.27	148	46.667	36	58.62	103
19	58.792	78	74.75	128	46.631	83	59.65	87
29	58.714	110	76.03	104	46.548	126	60.52	69
Aug. 8	58.604	136	77.07	78	46.422	163	61.21	47
18	58.468	156	77.85	50	46.259	191	61.68	23
28	58.312	169	78.35	22	46.068	209	61.91	2
Sept. 7	58.143	175	78.57	8	45.859	215	61.89	28
17	57.968	171	78.49	38	45.644	210	61.61	53
27	57.797	158	78.11	68	45.434	191	61.08	76
Okt. 7	57.639	134	77.43	99	45.243	158	60.32	96
17	57.505	104	76.44	128	45.085	115	59.36	111
27	57.401	65	75.16	157	44.970	62	58.25	121
Nov. 6	57.336	20	73.59	184	44.908	1	57.04	125
16	57.316	29	71.75	207	44.907	64	55.79	122
26	57.345	79	69.68	226	44.971	129	54.57	115
Dez. 6	57.424	127	67.42	239	45.100	193	53.42	102
16	57.551	173	65.03	246	45.293	251	52.40	84
26	57.724	214	62.57	244	45.544	302	51.56	63
36	57.938		60.13		45.846		50.93	
Mittl. Ort	56.311		79.18		43.277		41.75	
sec δ, tg δ	1.036		+0.270		1.351		−0.908	
a, *a'*	+2.7		−6.1		+4.2		−6.1	
b, *b'*	−0.01		+0.95		+0.02		+0.95	

Tag	631) ζ Arae AR.		631) ζ Arae Dekl.		633) κ Ophiuchi AR.		633) κ Ophiuchi Dekl.	
1931	$16^h\,52^m$		$-55°\,52'$		$16^h\,54^m$		$+9°\,28'$	
Jan. 1	51.206	405	60.35	119	22.547	232	41.48	218
11	51.611	455	59.16	90	22.779	262	39.30	206
21	52.066	492	58.26	59	23.041	284	37.24	188
31	52.558	518	57.67	26	23.325	299	35.36	162
Feb. 10	53.076	531	57.41	4	23.624	306	33.74	131
20	53.607	535	57.45	34	23.930	308	32.43	94
März 2	54.142	529	57.79	62	24.238	304	31.49	55
12	54.671	517	58.41	89	24.542	295	30.94	16
22	55.188	497	59.30	113	24.837	283	30.78	24
Apr. 1	55.685	470	60.43	133	25.120	267	31.02	60
11	56.155	438	61.76	152	25.387	248	31.62	92
21	56.593	400	63.28	169	25.635	226	32.54	120
Mai 1	56.993	357	64.97	182	25.861	202	33.74	140
11	57.350	307	66.79	193	26.063	174	35.14	155
21	57.657	253	68.72	199	26.237	143	36.69	164
31	57.910	193	70.71	201	26.380	111	38.33	167
Juni 9	5 58.103	130	72.72	199	6 26.491	76	40.00	164
19	58.233	65	74.71	193	26.567	39	41.64	157
29	58.298	1	76.64	181	26.606	3	43.21	146
Juli 9	58.297	66	78.45	163	26.609	33	44.67	131
19	58.231	128	80.08	141	26.576	68	45.98	113
29	58.103	184	81.49	114	26.508	99	47.11	93
Aug. 8	57.919	231	82.63	83	26.409	127	48.04	71
18	57.688	267	83.46	48	26.282	148	48.75	49
28	57.421	291	83.94	11	26.134	162	49.24	24
Sept. 7	57.130	299	84.05	28	25.972	169	49.48	1
17	56.831	292	83.77	65	25.803	165	49.47	26
27	56.539	267	83.12	100	25.638	153	49.21	52
Okt. 7	56.272	226	82.12	132	25.485	131	48.69	78
17	56.046	170	80.80	159	25.354	101	47.91	104
27	55.876	103	79.21	179	25.253	62	46.87	130
Nov. 6	55.773	25	77.42	191	25.191	19	45.57	155
16	55.748	58	75.51	195	25.172	29	44.02	176
26	55.806	143	73.56	192	25.201	79	42.26	195
Dez. 6	55.949	225	71.64	181	25.280	126	40.31	209
16	56.174	302	69.83	162	25.406	171	38.22	217
26	56.476	370	68.21	138	25.577	211	36.05	218
36	56.846		66.83		25.788		33.87	
Mittl. Ort	54.129		59.83		24.061		51.50	
sec δ, tg δ	1.783		−1.476		1.014		+0.167	
a, *a'*	+5.0		−5.8		+2.9		−5.7	
b, *b'*	+0.03		+0.96		0.00		+0.96	

Scheinbare Sternörter 1931

Tag	634) ε Herculis AR.		634) ε Herculis Dekl.		637) η Ophiuchi AR.		637) η Ophiuchi Dekl.	
1931	$16^h 57^m$		$+31° 1'$		$17^h 6^m$		$-15° 38'$	
Jan. 1	37.348	227	24.06	299	23.423	247	34.37	86
11	37.575	265	21.07	276	23.670	277	35.23	90
21	37.840	293	18.31	244	23.947	300	36.13	91
31	38.133	314	15.87	203	24.247	314	37.04	88
Feb. 10	38.447	326	13.84	155	24.561	323	37.92	80
20	38.773	331	12.29	101	24.884	325	38.72	69
März 2	39.104	329	11.28	46	25.209	323	39.41	56
12	39.433	320	10.82	11	25.532	317	39.97	40
22	39.753	306	10.93	66	25.849	306	40.37	25
Apr. 1	40.059	287	11.59	116	26.155	292	40.62	11
11	40.346	263	12.75	160	26.447	276	40.73	2
21	40.609	235	14.35	198	26.723	257	40.71	13
Mai 1	40.844	205	16.33	226	26.980	233	40.58	22
11	41.049	171	18.59	247	27.213	208	40.36	27
21	41.220	133	21.06	258	27.421	177	40.09	31
31	6 41.353	94	23.64	262	9 27.598	145	39.78	31
Juni 9*)	41.447	53	26.26	257	27.743	109	39.47	31
19	41.500	12	28.83	245	27.852	71	39.16	29
29	41.512	29	31.28	226	27.923	32	38.87	26
Juli 9	41.483	70	33.54	202	27.955	7	38.61	23
19	41.413	107	35.56	173	27.948	46	38.38	21
29	41.306	142	37.29	141	27.902	80	38.17	18
Aug. 8	41.164	171	38.70	105	27.822	111	37.99	16
18	40.993	194	39.75	67	27.711	137	37.83	15
28	40.799	209	40.42	27	27.574	153	37.68	14
Sept. 7	40.590	215	40.69	14	27.421	162	37.54	13
17	40.375	212	40.55	56	27.259	161	37.41	11
27	40.163	200	39.99	96	27.098	150	37.30	9
Okt. 7	39.963	176	39.03	137	26.948	127	37.21	5
17	39.787	144	37.66	176	26.821	97	37.16	1
27	39.643	104	35.90	212	26.724	57	37.17	9
Nov. 6	39.539	57	33.78	244	26.667	12	37.26	20
16	39.482	5	31.34	272	26.655	38	37.46	31
26	39.477	48	28.62	293	26.693	89	37.77	43
Dez. 6	39.525	103	25.69	306	26.782	138	38.20	57
16	39.628	155	22.63	310	26.920	185	38.77	69
26	39.783	201	19.53	305	27.105	225	39.46	78
36	39.984		16.48		27.330		40.24	
Mittl. Ort	38.940		36.93		25.118		27.74	
sec δ, tg δ	1.167		+0.602		1.038		−0.280	
a, a'	+2.3		−5.4		+3.4		−4.6	
b, b'	−0.01		+0.96		0.00		+0.97	

Tag	639) ζ Draconis AR.		639) ζ Draconis Dekl.		640) α Herculis AR.		640) α Herculis Dekl.	
1931	$17^h 8^m$		$+65° 47'$		$17^h 11^m$		$+14° 27'$	
Jan. 1	32.16	27	43.26	353	28.450	216	52.83	237
11	32.43	37	39.73	322	28.666	248	50.46	224
21	32.80	44	36.51	282	28.914	273	48.22	203
31	33.24	51	33.69	230	29.187	291	46.19	175
Feb. 10	33.75	55	31.39	170	29.478	302	44.44	140
20	34.30	57	29.69	106	29.780	307	43.04	99
März 2	34.87	58	28.63	37	30.087	306	42.05	56
12	35.45	58	28.26	31	30.393	301	41.49	12
22	36.03	55	28.57	96	30.694	291	41.37	32
Apr. 1	36.58	51	29.53	157	30.985	277	41.69	72
11	37.09	45	31.10	210	31.262	260	42.41	109
21	37.54	38	33.20	255	31.522	239	43.50	139
Mai 1	37.92	31	35.75	290	31.761	214	44.89	164
11	38.23	22	38.65	313	31.975	187	46.53	181
21	38.45	14	41.78	328	32.162	157	48.34	193
31	9 38.59	5	45.06	331	32.319	123	50.27	196
Juni 9*)	38.64	4	48.37	324	10 32.442	87	52.23	195
19	38.60	13	51.61	310	32.529	49	54.18	187
29	38.47	21	54.71	285	32.578	11	56.05	174
Juli 9	38.26	29	57.56	255	32.589	27	57.79	158
19	37.97	36	60.11	218	32.562	63	59.37	138
29	37.61	43	62.29	176	32.499	97	60.75	114
Aug. 8	37.18	48	64.05	131	32.402	126	61.89	90
18	36.70	51	65.36	81	32.276	151	62.79	63
28	36.19	54	66.17	31	32.125	168	63.42	34
Sept. 7	35.65	56	66.48	22	31.957	176	63.76	5
17	35.09	55	66.26	75	31.781	176	63.81	24
27	34.54	53	65.51	126	31.605	166	63.57	54
Okt. 7	34.01	49	64.25	176	31.439	146	63.03	85
17	33.52	44	62.49	224	31.293	118	62.18	114
27	33.08	37	60.25	268	31.175	82	61.04	143
Nov. 6	32.71	29	57.57	305	31.093	39	59.61	170
16	32.42	20	54.52	336	31.054	8	57.91	194
26	32.22	10	51.16	359	31.062	56	55.97	214
Dez. 6	32.12	1	47.57	372	31.118	105	53.83	229
16	32.13	11	43.85	373	31.223	151	51.54	237
26	32.24	22	40.12	363	31.374	193	49.17	238
36	32.46		36.49		31.567		46.79	
Mittl. Ort	34.99		58.27		30.013		63.53	
sec δ, tg δ	2.439		+2.225		1.033		+0.258	
a, a'	+0.2		−4.5		+2.7		−4.2	
b, b'	−0.03		+0.97		0.00		+0.98	

*) Bei Stern 640) lies Juni 10

Tag	641) δ Herculis				643) π Herculis				644) ϑ Ophiuchi				645) β Arae			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	17h 12m		+24° 54′		17h 12m		+36° 52′		17h 17m		−24° 55′		17h 19m		−55° 27′	
Jan. 1	10.202	213	58.05	279	36.868	214	56.31	317	44.328	253	62.21	27	30.617	366	63.69	142
11	10.415	248	55.26	262	37.082	256	53.14	294	44.581	285	62.48	36	30.983	419	62.27	117
21	10.663	277	52.64	234	37.338	290	50.20	261	44.866	311	62.84	44	31.402	463	61.10	89
31	10.940	297	50.30	199	37.628	316	47.59	219	45.177	328	63.28	48	31.865	494	60.21	61
Feb. 10	11.237	310	48.31	156	37.944	333	45.40	169	45.505	339	63.76	50	32.359	515	59.60	32
20	11.547	317	46.75	107	38.277	342	43.71	113	45.844	344	64.26	48	32.874	525	59.28	4
März 2	11.864	317	45.68	56	38.619	344	42.58	53	46.188	343	64.74	44	33.399	527	59.24	24
12	12.181	311	45.12	4	38.963	338	42.05	7	46.531	338	65.18	40	33.926	522	59.48	50
22	12.492	301	45.08	48	39.301	326	42.12	65	46.869	329	65.58	34	34.448	508	59.98	75
Apr. 1	12.793	286	45.56	96	39.627	308	42.77	119	47.198	318	65.92	29	34.956	489	60.73	98
11	13.079	266	46.52	138	39.935	284	43.96	168	47.516	301	66.21	24	35.445	462	61.71	119
21	13.345	243	47.90	175	40.219	256	45.64	209	47.817	282	66.45	21	35.907	430	62.90	138
Mai 1	13.588	215	49.65	204	40.475	223	47.73	241	48.099	259	66.66	19	36.337	390	64.28	155
11	13.803	185	51.69	224	40.698	187	50.14	265	48.358	231	66.85	17	36.727	345	65.83	170
21	13.988	151	53.93	237	40.885	146	52.79	280	48.589	201	67.02	18	37.072	293	67.53	181
31	14.139	115	56.30	242	41.031	105	55.59	284	48.790	167	67.20	20	37.365	236	69.34	188
Juni 10	14.254	76	58.72	240	41.136	60	58.43	282	48.957	128	67.40	21	37.601	174	71.22	192
19	14.330	37	61.12	230	41.196	15	61.25	270	49.085	88	67.61	22	37.775	108	73.14	190
29	14.367	5	63.42	215	41.211	31	63.95	252	49.173	45	67.83	24	37.883	41	75.04	183
Juli 9	14.362	44	65.57	194	41.180	74	66.47	228	49.218	3	68.07	22	37.924	27	76.87	172
19	14.318	82	67.51	169	41.106	116	68.75	197	49.221	39	68.29	22	37.897	92	78.59	155
29	14.236	117	69.20	140	40.990	154	70.72	164	49.182	78	68.51	18	37.805	153	80.14	132
Aug. 8	14.119	147	70.60	108	40.836	187	72.36	125	49.104	112	68.69	13	37.652	206	81.46	104
18	13.972	172	71.68	74	40.649	212	73.61	85	48.992	141	68.82	7	37.446	249	82.50	73
28	13.800	190	72.42	39	40.437	231	74.46	42	48.851	161	68.89	1	37.197	280	83.23	38
Sept. 7	13.610	198	72.81	2	40.206	240	74.88	2	48.690	172	68.88	9	36.917	296	83.61	1
17	13.412	198	72.83	36	39.966	240	74.86	47	48.518	173	68.79	17	36.621	297	83.62	37
27	13.214	187	72.47	73	39.726	229	74.39	91	48.345	162	68.62	24	36.324	280	83.25	74
Okt. 7	13.027	168	71.74	111	39.497	207	73.48	136	48.183	141	68.38	30	36.044	247	82.51	108
17	12.859	139	70.63	148	39.290	176	72.12	178	48.042	109	68.08	33	35.797	199	81.43	138
27	12.720	101	69.15	181	39.114	136	70.34	217	47.933	69	67.75	33	35.598	137	80.05	163
Nov. 6	12.619	57	67.34	213	38.978	88	68.17	253	47.864	21	67.42	31	35.461	64	78.42	180
16	12.562	9	65.21	241	38.890	36	65.64	283	47.843	30	67.11	24	35.397	15	76.62	190
26	12.553	42	62.80	262	38.854	21	62.81	306	47.873	83	66.87	16	35.412	98	74.72	193
Dez. 6	12.595	94	60.18	278	38.875	78	59.75	321	47.956	136	66.71	5	35.510	180	72.79	188
16	12.689	143	57.40	286	38.953	133	56.54	327	48.092	186	66.66	6	35.690	257	70.91	175
26	12.832	187	54.54	281	39.086	184	53.27	323	48.278	229	66.72	18	35.947	328	69.16	158
36	13.019		51.73		39.270		50.04		48.507		66.90		36.275		67.58	
Mittl. Ort	11.805		69.93		38.590		69.34		46.166		56.27		33.534		60.87	
sec δ, tg δ	1.103		+0.465		1.250		+0.750		1.103		−0.465		1.764		−1.453	
a, a'	+2.5		−4.2		+2.1		−4.1		+3.7		−3.7		+5.0		−3.5	
b, b'	−0.01		+0.98		−0.01		+0.98		+0.01		+0.98		+0.02		+0.98.	

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Tag	648) δ Arae AR.		648) δ Arae Dekl.		651) α Arae AR.		651) α Arae Dekl.		653) β Draconis AR.		653) β Draconis Dekl.		652) λ Scorpii AR.		652) λ Scorpii Dekl.	
1931	17h 24m		−60° 37′		17h 26m		−49° 49′		17h 28m		+52° 20′		17h 28m		−37° 3′	
Jan. 1	48.56	40	45.51	171	27.650	322	29.02	118	50.189	204	53.02	350	53.078	271	24.09	50
11	48.96	47	43.80	145	27.972	371	27.84	98	50.393	263	49.52	326	53.349	309	23.59	35
21	49.43	51	42.35	116	28.343	408	26.86	74	50.656	315	46.26	291	53.658	339	23.24	20
31	49.94	55	41.19	85	28.751	437	26.12	50	50.971	357	43.35	246	53.997	362	23.04	7
Feb. 10	50.49	59	40.34	52	29.188	456	25.62	27	51.328	388	40.89	191	54.359	377	22.97	5
20	51.08	60	39.82	19	29.644	466	25.35	4	51.716	408	38.98	130	54.736	384	23.02	16
März 2	51.68	60	39.63	12	30.110	469	25.31	19	52.124	417	37.68	64	55.120	387	23.18	26
12	52.28	59	39.75	43	30.579	465	25.50	39	52.541	416	37.04	1	55.507	383	23.44	33
22	52.87	58	40.18	72	31.044	455	25.89	59	52.957	404	37.05	66	55.890	375	23.77	41
Apr. 1	53.45	56	40.90	101	31.499	439	26.48	77	53.361	382	37.71	127	56.265	364	24.18	48
11	54.01	53	41.91	125	31.938	417	27.25	95	53.743	353	38.98	182	56.629	347	24.66	54
21	54.54	50	43.16	149	32.355	391	28.20	111	54.096	315	40.80	230	56.976	326	25.20	61
Mai 1	55.04	45	44.65	170	32.746	358	29.31	126	54.411	271	43.10	267	57.302	301	25.81	68
11	55.49	39	46.35	187	33.104	320	30.57	139	54.682	222	45.77	296	57.603	272	26.49	74
21	55.88	34	48.22	201	33.424	276	31.96	148	54.904	167	48.73	314	57.875	236	27.23	80
31	56.22	27	50.23	211	33.700	226	33.44	156	55.071	110	51.87	323	58.111	197	28.03	85
Juni 10	56.49	20	52.34	216	[14] 33.926	172	35.00	161	[14] 55.181	51	55.10	322	[14] 58.308	155	28.88	88
19	[13] 56.69	12	54.50	215	34.098	115	36.61	161	55.232	10	58.32	312	58.463	107	29.76	90
29	56.81	4	56.65	208	34.213	55	38.22	157	55.222	70	61.44	293	58.570	59	30.66	90
Juli 9	56.85	3	58.73	196	34.268	6	39.79	148	55.152	126	64.37	268	58.629	10	31.56	86
19	56.82	11	60.69	177	34.262	64	41.27	135	55.026	181	67.05	236	58.639	38	32.42	79
29	56.71	18	62.46	153	34.198	120	42.62	117	54.845	230	69.41	198	58.601	84	33.21	69
Aug. 8	56.53	24	63.99	123	34.078	168	43.79	93	54.615	273	71.39	156	58.517	125	33.90	55
18	56.29	30	65.22	89	33.910	208	44.72	67	54.342	307	72.95	112	58.392	158	34.45	40
28	55.99	33	66.11	50	33.702	238	45.39	38	54.035	331	74.07	63	58.234	184	34.85	21
Sept. 7	55.66	35	66.61	9	33.464	254	45.77	6	53.704	345	74.70	13	58.050	198	35.06	1
17	55.31	35	66.70	33	33.210	256	45.83	28	53.359	348	74.83	38	57.852	200	35.07	19
27	54.96	34	66.37	75	32.954	244	45.55	59	53.011	338	74.45	88	57.652	191	34.88	39
Okt. 7	54.62	30	65.62	114	32.710	216	44.96	89	52.673	316	73.57	138	57.461	169	34.49	57
17	54.32	24	64.48	148	32.494	175	44.07	115	52.357	282	72.19	187	57.292	135	33.92	72
27	54.08	18	63.00	177	32.319	122	42.92	137	52.075	236	70.32	232	57.157	92	33.20	83
Nov. 6	53.90	9	61.23	200	32.197	58	41.55	153	51.839	181	68.00	272	57.065	39	32.37	91
16	53.81	0	59.23	213	32.139	12	40.02	161	51.658	117	65.28	307	57.026	18	31.46	93
26	53.81	9	57.10	218	32.151	85	38.41	163	51.541	49	62.21	335	57.044	77	30.53	91
Dez. 6	53.90	18	54.92	216	32.236	158	36.78	159	51.492	22	58.86	352	57.121	137	29.62	85
16	54.08	27	52.76	205	32.394	226	35.19	148	51.514	94	55.34	360	57.258	193	28.77	74
26	54.35	36	50.71	187	32.620	288	33.71	132	51.608	163	51.74	355	57.451	243	28.03	61
36	54.71		48.84		32.908		32.39		51.771		48.19		57.694		27.42	
Mittl. Ort	51.90		42.65		30.232		25.14		52.366		66.36		55.184		18.83	
sec δ, tg δ	2.039		−1.777		1.550		−1.184		1.637		+1.296		1.253		−0.755	
a, a'	+5.4		−3.1		+4.6		−2.9		+1.4		−2.7		+4.1		−2.7	
b, b'	+0.02		+0.99		+0.01		+0.99		−0.01		+0.99		+0.01		+0.99	

Tag	656) α Ophiuchi AR.		656) α Ophiuchi Dekl.		654) ϑ Scorpii AR.		654) ϑ Scorpii Dekl.	
1931	$17^h\ 31^m$		$+12°\ 36'$		$17^h\ 32^m$		$-42°\ 57'$	
Jan. 1	42.217	199	21.58	226	19.137	285	26.31	86
11	42.416	232	19.32	215	19.422	329	25.45	69
21	42.648	259	17.17	197	19.751	363	24.76	50
31	42.907	279	15.20	172	20.114	388	24.26	33
Feb. 10	43.186	293	13.48	139	20.502	405	23.93	15
20	43.479	302	12.09	101	20.907	414	23.78	1
März 2	43.781	304	11.08	60	21.321	418	23.79	16
12	44.085	302	10.48	17	21.739	416	23.95	31
22	44.387	296	10.31	26	22.155	407	24.26	44
Apr. 1	44.683	285	10.57	65	22.562	395	24.70	56
11	44.968	271	11.22	101	22.957	378	25.26	68
21	45.239	253	12.23	132	23.335	355	25.94	80
Mai 1	45.492	231	13.55	156	23.690	328	26.74	91
11	45.723	205	15.11	176	24.018	295	27.65	101
21	45.928	176	16.87	187	24.313	257	28.66	109
31	46.104	143	18.74	193	24.570	214	29.75	116
Juni 10	46.247	107	20.67	192	24.784	168	30.91	121
19	[15] 46.354	70	22.59	186	[15] 24.952	117	32.12	123
29	46.424	31	24.45	174	25.069	63	33.35	121
Juli 9	46.455	8	26.19	160	25.132	10	34.56	116
19	46.447	47	27.79	140	25.142	43	35.72	107
29	46.400	83	29.19	119	25.099	93	36.79	94
Aug. 8	46.317	114	30.38	95	25.006	138	37.73	76
18	46.203	142	31.33	70	24.868	174	38.49	56
28	46.061	161	32.03	43	24.694	202	39.05	32
Sept. 7	45.900	173	32.46	16	24.492	219	39.37	7
17	45.727	176	32.62	13	24.273	222	39.44	19
27	45.551	170	32.49	41	24.051	212	39.25	45
Okt. 7	45.381	153	32.08	70	23.839	190	38.80	69
17	45.228	127	31.38	98	23.649	153	38.11	90
27	45.101	93	30.40	127	23.496	106	37.21	107
Nov. 6	45.008	54	29.13	153	23.390	51	36.14	118
16	44.954	8	27.60	177	23.339	11	34.96	125
26	44.946	39	25.83	197	23.350	75	33.71	125
Dez. 6	44.985	88	23.86	213	23.425	139	32.46	121
16	45.073	133	21.73	222	23.564	201	31.25	111
26	45.206	175	19.51	225	23.765	256	30.14	98
36	45.381		17.26		24.021		29.16	
Mittl. Ort	43.828		31.99		21.428		21.37	
sec δ, tg δ	1.025		+0.224		1.366		−0.931	
a, a'	+2.8		−2.5		+4.3		−2.4	
b, b'	0.00		+0.99		+0.01		+0.99	

Tag	658) ξ Serpentis AR.		658) ξ Serpentis Dekl.		664) ω Draconis AR.		664) ω Draconis Dekl.	
1931	$17^h\ 33^m$		$-15°\ 21'$		$17^h\ 37^m$		$+68°\ 46'$	
Jan. 1	36.307	222	31.85	74	17.69	22	70.81	359
11	36.529	255	32.59	78	17.91	33	67.22	335
21	36.784	281	33.37	77	18.24	42	63.87	301
31	37.065	299	34.14	73	18.66	51	60.86	255
Feb. 10	37.364	312	34.87	65	19.17	57	58.31	200
20	37.676	319	35.52	53	19.74	62	56.31	137
März 2	37.995	322	36.05	40	20.36	64	54.94	70
12	38.317	319	36.45	25	21.00	65	54.24	3
22	38.636	312	36.70	9	21.65	63	54.21	65
Apr. 1	38.948	304	36.79	5	22.28	59	54.86	127
11	39.252	291	36.74	18	22.87	54	56.13	185
21	39.543	275	36.56	28	23.41	48	57.98	235
Mai 1	39.818	254	36.28	37	23.89	40	60.33	275
11	40.072	230	35.91	41	24.29	30	63.08	305
21	40.302	202	35.50	43	24.59	21	66.13	325
31	40.504	169	35.07	43	24.80	11	69.38	336
Juni 10	40.673	135	34.64	41	24.91	1	72.74	336
19	[16] 40.808	96	34.23	37	[17] 24.92	9	76.10	326
29	40.904	56	33.86	32	24.83	20	79.36	309
Juli 9	40.960	15	33.54	27	24.63	29	82.45	283
19	40.975	26	33.27	22	24.34	38	85.28	251
29	40.949	64	33.05	17	23.96	46	87.79	213
Aug. 8	40.885	98	32.88	13	23.50	52	89.92	171
18	40.787	127	32.75	11	22.98	58	91.63	124
28	40.660	149	32.64	9	22.40	62	92.87	74
Sept. 7	40.511	162	32.55	7	21.78	64	93.61	23
17	40.349	165	32.48	4	21.14	65	93.84	30
27	40.184	158	32.44	3	20.49	63	93.54	82
Okt. 7	40.026	141	32.41	1	19.86	61	92.72	134
17	39.885	114	32.42	5	19.25	55	91.38	185
27	39.771	77	32.47	11	18.70	49	89.53	232
Nov. 6	39.694	35	32.58	20	18.21	41	87.21	274
16	39.659	12	32.78	29	17.80	31	84.47	310
26	39.671	62	33.07	39	17.49	20	81.37	339
Dez. 6	39.733	111	33.46	50	17.29	9	77.98	359
16	39.844	157	33.96	60	17.20	3	74.39	367
26	40.001	199	34.56	68	17.23	15	70.72	365
36	40.200		35.24		17.38		67.07	
Mittl. Ort	38.036		24.16		21.15		84.06	
sec δ, tg δ	1.037		−0.275		2.764		+2.577	
a, a'	+3.4		−2.3		−0.4		−2.0	
b, b'	0.00		+0.99		−0.02		+1.00	

Scheinbare Sternörter 1931

Tag	663) ι Herculis AR.	Δ	663) ι Herculis Dekl.	Δ	661) η Pavonis AR.	Δ	661) η Pavonis Dekl.	Δ
1931	17h 37m		+46° 2′		17h 38m		−64° 41′	
Jan. 1	28.961	187	18.96	340	53.53	42	39.34	202
11	29.148	240	15.56	320	53.95	50	37.32	177
21	29.388	284	12.36	288	54.45	56	35.55	148
31	29.672	321	9.48	245	55.01	61	34.07	117
Feb. 10	29.993	349	7.03	194	55.62	65	32.90	82
20	30.342	367	5.09	136	56.27	66	32.08	48
März 2	30.709	377	3.73	74	56.93	68	31.60	13
12	31.086	377	2.99	9	57.61	68	31.47	21
22	31.463	369	2.90	54	58.29	67	31.68	54
Apr. 1	31.832	353	3.44	114	58.96	64	32.22	86
11	32.185	329	4.58	168	59.60	62	33.08	116
21	32.514	299	6.26	215	60.22	58	34.24	143
Mai 1	32.813	264	8.41	254	60.80	52	35.67	168
11	33.077	222	10.95	283	61.32	47	37.35	190
21	33.299	175	13.78	302	61.79	41	39.25	208
31	33.474	127	16.80	313	62.20	32	41.33	221
Juni 10	(17) 33.601	75	19.93	313	(17) 62.52	25	43.54	229
19	33.676	21	23.06	305	62.77	16	45.83	231
29	33.697	32	26.11	289	62.93	6	48.14	227
Juli 9	33.665	84	29.00	266	62.99	3	50.41	217
19	33.581	134	31.66	236	62.96	11	52.58	200
29	33.447	180	34.02	201	62.85	19	54.58	177
Aug. 8	33.267	220	36.03	161	62.66	27	56.35	146
18	33.047	253	37.64	119	62.39	33	57.81	110
28	32.794	277	38.83	73	62.06	38	58.91	71
Sept. 7	32.517	292	39.56	25	61.68	41	59.62	27
17	32.225	297	39.81	23	61.27	41	59.89	18
27	31.928	290	39.58	72	60.86	40	59.71	63
Okt. 7	31.638	271	38.86	121	60.46	37	59.08	107
17	31.367	241	37.65	169	60.09	31	58.01	147
27	31.126	201	35.96	212	59.78	23	56.54	180
Nov. 6	30.925	152	33.84	254	59.55	15	54.74	208
16	30.773	97	31.30	289	59.40	5	52.66	226
26	30.676	36	28.41	317	59.35	6	50.40	237
Dez. 6	30.640	28	25.24	336	59.41	17	48.03	239
16	30.668	88	21.88	346	59.58	27	45.64	232
26	30.756	154	18.42	344	59.85	36	43.32	217
36	30.910		14.98		60.21		41.15	
Mittl. Ort	30.977		31.57		57.33		35.51	
sec δ, tg δ	1.441		+1.037		2.339		−2.115	
a, *a′*	+1.7		−2.0		+5.9		−1.8	
b, *b′*	−0.01		+1.00		+0.01		+1.00	

Tag	665) β Ophiuchi AR.	Δ	665) β Ophiuchi Dekl.	Δ	670) ψ Draconis AR.	Δ	670) ψ Draconis Dekl.	Δ
1931	17h 40m		+4° 35′		17h 43m		+72° 10′	
Jan. 1	2.154	196	31.08	183	5.56	22	46.64	360
11	2.350	229	29.25	177	5.78	35	43.04	339
21	2.579	256	27.48	163	6.13	47	39.65	304
31	2.835	275	25.85	144	6.60	57	36.61	260
Feb. 10	3.110	290	24.41	118	7.17	64	34.01	206
20	3.400	298	23.23	87	7.81	71	31.95	144
März 2	3.698	302	22.36	54	8.52	74	30.51	79
12	4.000	301	21.82	19	9.26	75	29.72	10
22	4.301	296	21.63	17	10.01	73	29.62	56
Apr. 1	4.597	288	21.80	50	10.74	69	30.18	119
11	4.885	275	22.30	81	11.43	64	31.37	178
21	5.160	260	23.11	106	12.07	56	33.15	227
Mai 1	5.420	239	24.17	127	12.63	46	35.42	269
11	5.659	215	25.44	142	13.09	36	38.11	300
21	5.874	188	26.86	153	13.45	24	41.11	322
31	6.062	157	28.39	156	13.69	12	44.33	333
Juni 10	(17) 6.219	122	29.95	155	(18) 13.81	0	47.66	334
19	6.341	85	31.50	150	13.81	12	51.00	327
29	6.426	46	33.00	141	13.69	24	54.27	310
Juli 9	6.472	8	34.41	128	13.45	35	57.37	285
19	6.480	32	35.69	113	13.10	46	60.22	254
29	6.448	69	36.82	96	12.64	55	62.76	217
Aug. 8	6.379	101	37.78	78	12.09	63	64.93	176
18	6.278	130	38.56	59	11.46	69	66.69	130
28	6.148	151	39.15	38	10.77	74	67.99	80
Sept. 7	5.997	163	39.53	17	10.03	78	68.79	30
17	5.834	168	39.70	4	9.25	78	69.09	22
27	5.666	163	39.66	25	8.47	77	68.87	75
Okt. 7	5.503	147	39.41	48	7.70	73	68.12	127
17	5.356	123	38.93	69	6.97	69	66.85	178
27	5.233	91	38.24	92	6.28	61	65.07	225
Nov. 6	5.142	50	37.32	114	5.67	51	62.82	268
16	5.092	7	36.18	134	5.16	41	60.14	306
26	5.085	40	34.84	151	4.75	28	57.08	335
Dez. 6	5.125	87	33.33	166	4.47	15	53.73	356
16	5.212	131	31.67	176	4.32	0	50.17	366
26	5.343	173	29.91	180	4.32	13	46.51	365
36	5.516		28.11		4.45		42.86	
Mittl. Ort	3.781		40.77		9.66		59.51	
sec δ, tg δ	1.003		+0.080		3.268		+3.112	
a, *a′*	+3.0		−1.7		−1.1		−1.5	
b, *b′*	0.00		+1.00		−0.02		+1.00	

Tag	667) μ Herculis AR.		667) μ Herculis Dekl.		671) ξ Draconis AR.		671) ξ Draconis Dekl.	
1931	17h 43m		+27° 45′		17h 52m		+56° 52′	
Jan. 1	43.682 s	180	24.27 ″	290	17.601 s	168	46.52 ″	358
11	43.862	218	21.37	275	17.769	240	42.94	338
21	44.080	252	18.62	250	18.009	303	39.56	308
31	44.332	278	16.12	216	18.312	356	36.48	266
Feb. 10	44.610	297	13.96	174	18.668	399	33.82	213
20	44.907	311	12.22	127	19.067	429	31.69	154
März 2	45.218	317	10.95	74	19.496	448	30.15	89
12	45.535	318	10.21	19	19.944	455	29.26	23
22	45.853	313	10.02	35	20.399	449	29.03	45
Apr. 1	46.166	303	10.37	86	20.848	432	29.48	107
11	46.469	287	11.23	133	21.280	404	30.55	166
21	46.756	267	12.56	173	21.684	366	32.21	217
Mai 1	47.023	243	14.29	207	22.050	320	34.38	260
11	47.266	213	16.36	232	22.370	267	36.98	294
21	47.479	180	18.68	249	22.637	208	39.92	317
31	47.659	143	21.17	258	22.845	144	43.09	330
Juni 10	47.802	105	23.75	259	22.989	78	46.39	334
19*)	[18] 47.907	62	26.34	254	[20] 23.067	9	49.73	329
29	47.969	19	28.88	240	23.076	60	53.02	314
Juli 9	47.988	24	31.28	221	23.016	125	56.16	291
19	47.964	66	33.49	197	22.891	189	59.07	263
29	47.898	105	35.46	169	22.702	247	61.70	229
Aug. 8	47.793	140	37.15	137	22.455	298	63.99	188
18	47.653	170	38.52	102	22.157	340	65.87	144
28	47.483	192	39.54	65	21.817	373	67.31	96
Sept. 7	47.291	206	40.19	27	21.444	394	68.27	46
17	47.085	211	40.46	12	21.050	402	68.73	5
27	46.874	206	40.34	52	20.648	397	68.68	58
Okt. 7	46.668	191	39.82	92	20.251	380	68.10	109
17	46.477	167	38.90	131	19.871	348	67.01	160
27	46.310	133	37.59	169	19.523	303	65.41	209
Nov. 6	46.177	92	35.90	204	19.220	249	63.32	253
16	46.085	45	33.86	234	18.971	184	60.79	292
26	46.040	4	31.52	259	18.787	111	57.87	323
Dez. 6	46.044	55	28.93	279	18.676	34	54.64	346
16	46.099	105	26.14	289	18.642	44	51.18	359
26	46.204	152	23.25	291	18.686	123	47.59	360
36	46.356		20.34		18.809		43.99	
Mittl. Ort	45.404		35.64		20.124		58.62	
sec δ, tg δ	1.130		+0.526		1.830		+1.533	
a, a'	+2.4		−1.4		+1.0		−0.7	
b, b'	0.00		+1.00		0.00		+1.00	

Tag	675) 35 Draconis AR.		675) 35 Draconis Dekl.		672) ϑ Herculis AR.		672) ϑ Herculis Dekl.	
1931	17h 52m		+76° 57′		17h 53m		+37° 15′	
Jan. 1	26.53 s	21	71.09 ″	356	51.286 s	165	19.73 ″	318
11	26.74	39	67.53	337	51.451	212	16.55	303
21	27.13	56	64.16	305	51.663	251	13.52	276
31	27.69	70	61.11	263	51.914	284	10.76	240
Feb. 10	28.39	83	58.48	212	52.198	310	8.36	194
20	29.22	91	56.36	152	52.508	327	6.42	141
März 2	30.13	96	54.84	87	52.835	337	5.01	83
12	31.09	99	53.97	21	53.172	341	4.18	24
22	32.08	98	53.76	46	53.513	338	3.94	36
Apr. 1	33.06	92	54.22	109	53.851	328	4.30	93
11	33.98	85	55.31	167	54.179	311	5.23	146
21	34.83	75	56.98	219	54.490	289	6.69	191
Mai 1	35.58	62	59.17	260	54.779	262	8.60	230
11	36.20	48	61.77	294	55.041	229	10.90	260
21	36.68	32	64.71	318	55.270	192	13.50	281
31	37.00	16	67.89	330	55.462	150	16.31	292
Juni 10	37.16	1	71.19	334	55.612	106	19.23	296
19*)	[20] 37.15	17	74.53	328	[21] 55.718	60	22.19	290
29	36.98	34	77.81	314	55.778	11	25.09	278
Juli 9	36.64	49	80.95	291	55.789	37	27.87	258
19	36.15	63	83.86	262	55.752	83	30.45	232
29	35.52	76	86.48	227	55.669	126	32.77	202
Aug. 8	34.76	87	88.75	187	55.543	165	34.79	166
18	33.89	97	90.62	143	55.378	198	36.45	128
28	32.92	102	92.05	96	55.180	223	37.73	86
Sept. 7	31.90	107	93.01	45	54.957	240	38.59	43
17	30.83	109	93.46	6	54.717	247	39.02	2
27	29.74	108	93.40	58	54.470	244	39.00	47
Okt. 7	28.66	104	92.82	110	54.226	229	38.53	93
17	27.62	98	91.72	161	53.997	205	37.60	137
27	26.64	88	90.11	208	53.792	171	36.23	180
Nov. 6	25.76	77	88.03	253	53.621	129	34.43	220
16	24.99	63	85.50	291	53.492	81	32.23	254
26	24.36	46	82.59	322	53.411	28	29.69	283
Dez. 6	23.90	29	79.37	346	53.383	27	26.86	305
16	23.61	10	75.91	358	53.410	83	23.81	318
26	23.51	9	72.33	358	53.493	135	20.63	319
36	23.60		68.75		53.628		17.44	
Mittl. Ort	32.10		83.26		53.167		31.21	
sec δ, tg δ	4.436		+4.322		1.256		+0.761	
a, a'	−2.7		−0.7		+2.1		−0.5	
b, b'	−0.01		+1.00		0.00		+1.00	

*) Bei Stern 671), 675) und 672) lies Juni 20

Tag	676) γ Draconis				673) ν Ophiuchi				677) 67 Ophiuchi				679) γ Sagittarii			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	17h 54m		+51° 29′		17h 55m		−9° 45′		17h 57m		+2° 55′		18h 1m		−30° 25′	
Jan. 1	57.919	163	34.85	351	11.920	196	68.63	97	9.669	182	50.80	169	20.499	220	43.86	30
11	58.082	224	31.34	333	12.116	229	69.60	98	9.851	215	49.11	164	20.719	259	43.56	22
21	58.306	278	28.01	304	12.345	257	70.58	94	10.066	244	47.47	153	20.978	290	43.34	16
31	58.584	324	24.97	262	12.602	278	71.52	84	10.310	265	45.94	135	21.268	316	43.18	9
Feb. 10	58.908	361	22.35	213	12.880	293	72.36	71	10.575	282	44.59	111	21.584	334	43.09	4
20	59.269	387	20.22	154	13.173	304	73.07	54	10.857	293	43.48	83	21.918	346	43.05	2
März 2	59.656	403	18.68	91	13.477	310	73.61	35	11.150	299	42.65	51	22.264	354	43.03	0
12	60.059	409	17.77	26	13.787	311	73.96	14	11.449	301	42.14	17	22.618	357	43.03	1
22	60.468	405	17.51	40	14.098	308	74.10	8	11.750	299	41.97	16	22.975	355	43.04	2
Apr. 1	60.873	391	17.91	102	14.406	303	74.02	27	12.049	294	42.13	49	23.330	350	43.06	3
11	61.264	368	18.93	160	14.709	293	73.75	45	12.343	283	42.62	78	23.680	339	43.09	5
21	61.632	337	20.53	211	15.002	279	73.30	60	12.626	270	43.40	103	24.019	325	43.14	8
Mai 1	61.969	299	22.64	253	15.281	262	72.70	71	12.896	252	44.43	124	24.344	307	43.22	12
11	62.268	254	25.17	286	15.543	240	71.99	79	13.148	230	45.67	138	24.651	282	43.34	18
21	62.522	203	28.03	310	15.783	214	71.20	83	13.378	203	47.05	148	24.933	253	43.52	24
31	62.725	148	31.13	323	15.997	183	70.37	83	13.581	174	48.53	152	25.186	218	43.76	32
Juni 10	62.873	91	34.36	328	16.180	149	69.54	81	13.755	139	50.05	152	25.404	180	44.08	38
20	62.964	30	37.64	322	16.329	111	68.73	75	13.894	102	51.57	147	25.584	136	44.46	44
29	[21] 62.994	30	40.86	309	[21] 16.440	72	67.98	68	[22] 13.996	63	53.04	138	[23] 25.720	91	44.90	50
Juli 9	62.964	89	43.95	287	16.512	31	67.30	60	14.059	22	54.42	126	25.811	44	45.40	52
19	62.875	147	46.82	260	16.543	11	66.70	51	14.081	17	55.68	111	25.855	3	45.92	53
29	62.728	199	49.42	226	16.532	50	66.19	41	14.064	56	56.79	95	25.852	50	46.45	51
Aug. 8	62.529	245	51.68	187	16.482	86	65.78	32	14.008	91	57.74	78	25.802	92	46.96	47
18	62.284	285	53.55	144	16.396	117	65.46	24	13.917	121	58.52	59	25.710	128	47.43	39
28	61.999	315	54.99	98	16.279	141	65.22	16	13.796	145	59.11	40	25.582	157	47.82	29
Sept. 7	61.684	334	55.97	49	16.138	157	65.06	8	13.651	160	59.51	21	25.425	177	48.11	17
17	61.350	342	56.46	2	15.981	164	64.98	0	13.491	167	59.72	1	25.248	185	48.28	4
27	61.008	339	56.44	52	15.817	160	64.98	7	13.324	164	59.73	19	25.063	183	48.32	10
Okt. 7	60.669	323	55.92	104	15.657	147	65.05	16	13.160	152	59.54	40	24.880	168	48.22	23
17	60.346	295	54.88	153	15.510	124	65.21	24	13.008	130	59.14	60	24.712	143	47.99	35
27	60.051	255	53.35	200	15.386	92	65.45	35	12.878	99	58.54	81	24.569	108	47.64	44
Nov. 6	59.796	206	51.35	245	15.294	53	65.80	46	12.779	62	57.73	101	24.461	63	47.20	50
16	59.590	147	48.90	283	15.241	9	66.26	56	12.717	19	56.72	119	24.398	13	46.70	54
26	59.443	84	46.07	315	15.232	38	66.82	68	12.698	26	55.53	137	24.385	39	46.16	53
Dez. 6	59.359	15	42.92	338	15.270	85	67.50	78	12.724	72	54.16	151	24.424	94	45.63	50
16	59.344	55	39.54	351	15.355	130	68.28	86	12.796	117	52.65	161	24.518	146	45.13	45
26	59.399	122	36.03	352	15.485	173	69.14	94	12.913	158	51.04	167	24.664	193	44.68	38
36	59.521		32.51		15.658		70.08		13.071		49.37		24.857		44.30	
Mittl. Ort	60.198		46.69		13.621		59.82		11.321		60.46		22.454		36.15	
sec δ, tg δ	1.606		+1.257		1.015		−0.172		1.001		+0.051		1.160		−0.587	
a, a′	+1.4		−0.4		+3.3		−0.4		+3.0		−0.2		+3.9		+0.1	
b, b′	0.00		+1.00		0.00		+1.00		0.00		+1.00		0.00		+1.00	

Tag	680) 72 Ophiuchi AR.		680) Dekl.		681) o Herculis AR.		681) Dekl.	
1931	18ʰ 4ᵐ		+9° 32′		18ʰ 4ᵐ		+28° 44′	
Jan. 1	3.009	169	59.67	202	49.244	157	55.65	289
11	3.178	205	57.65	195	49.401	198	52.76	276
21	3.383	234	55.70	181	49.599	234	50.00	255
31	3.617	258	53.89	159	49.833	264	47.45	223
Feb. 10	3.875	276	52.30	131	50.097	286	45.22	182
20	4.151	289	50.99	97	50.383	304	43.40	135
März 2	4.440	297	50.02	59	50.687	314	42.05	83
12	4.737	301	49.43	20	51.001	319	41.22	29
22	5.038	299	49.23	21	51.320	318	40.93	26
Apr. 1	5.337	294	49.44	58	51.638	311	41.19	79
11	5.631	285	50.02	94	51.949	300	41.98	127
21	5.916	271	50.96	124	52.249	283	43.25	171
Mai 1	6.187	254	52.20	148	52.532	260	44.96	206
11	6.441	232	53.68	168	52.792	233	47.02	235
21	6.673	205	55.36	181	53.025	201	49.37	255
31	6.878	174	57.17	187	53.226	165	51.92	267
Juni 10	7.052	140	59.04	188	53.391	125	54.59	270
20	7.192	102	60.92	184	53.516	83	57.29	267
29	[23] 7.294	62	62.76	173	[24] 53.599	39	59.96	256
Juli 9	7.356	22	64.49	160	53.638	6	62.52	239
19	7.378	19	66.09	144	53.632	50	64.91	216
29	7.359	58	67.53	124	53.582	92	67.07	189
Aug. 8	7.301	93	68.77	103	53.490	129	68.96	158
18	7.208	125	69.80	79	53.361	162	70.54	124
28	7.083	149	70.59	55	53.199	188	71.78	87
Sept. 7	6.934	166	71.14	30	53.011	205	72.65	49
17	6.768	173	71.44	5	52.806	214	73.14	9
27	6.595	172	71.49	22	52.592	212	73.23	32
Okt. 7	6.423	161	71.27	48	52.380	201	72.91	73
17	6.262	139	70.79	74	52.179	179	72.18	113
27	6.123	110	70.05	100	52.000	149	71.05	152
Nov. 6	6.013	74	69.05	124	51.851	111	69.53	188
16	5.939	32	67.81	147	51.740	66	67.65	221
26	5.907	12	66.34	168	51.674	19	65.44	249
Dez. 6	5.919	59	64.66	184	51.655	32	62.95	271
16	5.978	104	62.82	195	51.687	81	60.24	283
26	6.082	146	60.87	199	51.768	130	57.41	288
36	6.228		58.88		51.898		54.53	
Mittl. Ort	4.670		69.68		51.029		66.40	
sec δ, tg δ	1.014		+0.168		1.141		+0.549	
a, *a′*	+2.8		+0.4		+2.3		+0.4	
b, *b′*	0.00		+1.00		0.00		+1.00	

Tag	682) μ Sagittarii AR.		682) Dekl.		688) η Serpentis AR.		688) Dekl.	
1931	18ʰ 9ᵐ		−21° 4′		18ʰ 17ᵐ		−2° 55′	
Jan. 1	36.366	196	51.42	23	42.652	166	15.03	131
11	36.562	233	51.65	26	42.818	202	16.34	129
21	36.795	263	51.91	27	43.020	230	17.63	120
31	37.058	286	52.18	26	43.250	254	18.83	107
Feb. 10	37.344	305	52.44	23	43.504	273	19.90	88
20	37.649	317	52.67	16	43.777	287	20.78	65
März 2	37.966	325	52.83	8	44.064	296	21.43	39
12	38.291	330	52.91	1	44.360	301	21.82	11
22	38.621	329	52.90	10	44.661	302	21.93	16
Apr. 1	38.950	326	52.80	19	44.963	300	21.77	43
11	39.276	317	52.61	26	45.263	293	21.34	68
21	39.593	306	52.35	30	45.556	283	20.66	89
Mai 1	39.899	289	52.05	33	45.839	268	19.77	105
11	40.188	268	51.72	32	46.107	248	18.72	117
21	40.456	241	51.40	31	46.355	224	17.55	124
31	40.697	211	51.09	26	46.579	195	16.31	127
Juni 10	40.908	175	50.83	21	46.774	161	15.04	125
20	41.083	135	50.62	14	46.935	125	13.79	120
29	[25] 41.218	93	50.48	7	[27] 47.060	85	12.59	112
Juli 9	41.311	49	50.41	1	47.145	44	11.47	100
19	41.360	5	50.40	5	47.189	3	10.47	88
29	41.365	39	50.45	9	47.192	38	9.59	74
Aug. 8	41.326	78	50.54	11	47.154	76	8.85	59
18	41.248	114	50.65	12	47.078	108	8.26	45
28	41.134	141	50.77	11	46.970	135	7.81	30
Sept. 7	40.993	161	50.88	8	46.835	154	7.51	16
17	40.832	170	50.96	5	46.681	164	7.35	1
27	40.662	170	51.01	1	46.517	165	7.34	13
Okt. 7	40.492	157	51.02	3	46.352	155	7.47	28
17	40.335	135	50.99	6	46.197	135	7.75	43
27	40.200	104	50.93	7	46.062	108	8.18	58
Nov. 6	40.096	64	50.86	7	45.954	73	8.76	73
16	40.032	18	50.79	5	45.881	32	9.49	87
26	40.014	29	50.74	0	45.849	12	10.36	101
Dez. 6	40.043	79	50.74	5	45.861	57	11.37	114
16	40.122	128	50.79	11	45.918	101	12.51	122
26	40.250	171	50.90	17	46.019	143	13.73	127
36	40.421		51.07		46.162		15.00	
Mittl. Ort	38.175		42.81		44.332		5.48	
sec δ, tg δ	1.072		−0.385		1.001		−0.051	
a, *a′*	+3.6		+0.8		+3.1		+1.6	
b, *b′*	0.00		+1.00		0.00		+1.00	

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Tag	689) ε Sagittarii AR.		689) Dekl.		690) 109 Herculis AR.		690) Dekl.		691) α Telescopii AR.		691) Dekl.		695) χ Draconis AR.		695) Dekl.	
1931	18ʰ 19ᵐ		−34° 25′		18ʰ 20ᵐ		+21° 43′		18ʰ 21ᵐ		−46° 0′		18ʰ 22ᵐ		+72° 41′	
Jan. 1	33.494	208	16.69	64	43.688	145	63.06	258	49.081	233	37.86	135	13.53	10	62.10	362
11	33.702	250	16.05	57	43.833	184	60.48	249	49.314	284	36.51	124	13.63	23	58.48	350
21	33.952	285	15.48	50	44.017	218	57.99	231	49.598	327	35.27	111	13.86	37	54.98	327
31	34.237	314	14.98	43	44.235	247	55.68	204	49.925	362	34.16	98	14.23	49	51.71	291
Feb. 10	34.551	336	14.55	36	44.482	269	53.64	170	50.287	390	33.18	82	14.72	59	48.80	244
20	34.887	352	14.19	31	44.751	287	51.94	128	50.677	411	32.36	66	15.31	66	46.36	188
März 2	35.239	363	13.88	25	45.038	300	50.66	81	51.088	424	31.70	50	15.97	73	44.48	127
12	35.602	370	13.63	21	45.338	306	49.85	33	51.512	432	31.20	33	16.70	76	43.21	61
22	35.972	371	13.42	15	45.644	308	49.52	18	51.944	435	30.87	16	17.46	77	42.60	7
Apr. 1	36.343	368	13.27	10	45.952	306	49.70	66	52.379	431	30.71	0	18.23	75	42.67	72
11	36.711	361	13.17	3	46.258	297	50.36	110	52.810	423	30.71	18	18.98	71	43.39	134
21	37.072	349	13.14	4	46.555	285	51.46	151	53.233	408	30.89	36	19.69	64	44.73	190
Mai 1	37.421	332	13.18	12	46.840	267	52.97	184	53.641	387	31.25	53	20.33	57	46.63	238
11	37.753	309	13.30	22	47.107	243	54.81	211	54.028	359	31.78	71	20.90	47	49.01	278
21	38.062	280	13.52	32	47.350	216	56.92	231	54.387	325	32.49	88	21.37	36	51.79	308
31	38.342	245	13.84	43	47.566	183	59.23	242	54.712	283	33.37	102	21.73	24	54.87	329
Juni 10	38.587	205	14.27	53	47.749	147	61.65	246	54.995	237	34.39	116	21.97	12	58.16	339
20	38.792	162	14.80	61	47.896	107	64.11	244	55.232	184	35.55	126	22.09	1	61.55	341
29	[27] 38.954	113	15.41	69	[28] 48.003	64	66.55	235	[28] 55.416	127	36.81	133	[28] 22.08	13	64.96	332
Juli 9	39.067	64	16.10	73	48.067	21	68.90	220	55.543	68	38.14	135	21.95	26	68.28	317
19	39.131	13	16.83	75	48.088	22	71.10	200	55.611	9	39.49	134	21.69	37	71.45	294
29	39.144	37	17.58	74	48.066	63	73.10	177	55.620	50	40.83	127	21.32	48	74.39	263
Aug. 8	39.107	83	18.32	68	48.003	102	74.87	150	55.570	104	42.10	114	20.84	58	77.02	227
18	39.024	124	19.00	59	47.901	135	76.37	120	55.466	152	43.24	98	20.26	66	79.29	186
28	38.900	157	19.59	48	47.766	163	77.57	87	55.314	191	44.22	77	19.60	72	81.15	141
Sept. 7	38.743	180	20.07	33	47.603	182	78.44	53	55.123	219	44.99	52	18.88	77	82.56	92
17	38.563	193	20.40	17	47.421	193	78.97	19	54.904	236	45.51	24	18.11	80	83.48	41
27	38.370	195	20.57	2	47.228	194	79.16	17	54.668	237	45.75	5	17.31	81	83.89	12
Okt. 7	38.175	183	20.55	19	47.034	185	78.99	54	54.431	225	45.70	34	16.50	79	83.77	65
17	37.992	160	20.36	36	46.849	167	78.45	89	54.206	199	45.36	63	15.71	75	83.12	118
27	37.832	126	20.00	51	46.682	140	77.56	124	54.007	160	44.73	88	14.96	70	81.94	169
Nov. 6	37.706	83	19.49	62	46.542	104	76.32	157	53.847	110	43.85	110	14.26	61	80.25	219
16	37.623	34	18.87	71	46.438	64	74.75	188	53.737	52	42.75	127	13.65	52	78.06	262
26	37.589	21	18.16	76	46.374	19	72.87	214	53.685	10	41.48	139	13.13	40	75.44	301
Dez. 6	37.610	75	17.40	77	46.355	27	70.73	235	53.695	75	40.09	144	12.73	28	72.43	330
16	37.685	129	16.63	76	46.382	74	68.38	249	53.770	139	38.65	146	12.45	13	69.13	350
26	37.814	180	15.87	70	46.456	119	65.89	255	53.909	199	37.19	142	12.32	1	65.63	360
36	37.994		15.17		46.575		63.34		54.108		35.77		12.33		62.03	
Mittl. Ort	35.518		8.17		45.432		73.16		51.442		29.61		18.14		72.03	
sec δ, tg δ	1.212		−0.685		1.077		+0.399		1.440		−1.036		3.363		+3.211	
a, a'	+4.0		+1.7		+2.5		+1.8		+4.5		+1.9		−1.2		+1.9	
b, b'	0.00		+1.00		0.00		+1.00		−0.01		+1.00		+0.02		+1.00	

Tag	694) *b* Draconis AR.		694) Dekl.		699) α Lyrae AR.		699) Dekl.		698) ζ Pavonis AR.		698) Dekl.		703) 110 Herculis AR.		703) Dekl.	
1931	$18^h\ 22^m$		+58° 45′		$18^h\ 34^m$		+38° 42′		$18^h\ 34^m$		−71° 29′		$18^h\ 42^m$		+20° 28′	
Jan. 1	51.393	112	26.79	358	34.104	116	56.80	316	54.09	37	33.94	270	39.739	123	34.96	246
11	51.505	191	23.21	346	34.220	165	53.64	308	54.46	49	31.24	255	39.862	162	32.50	240
21	51.696	261	19.75	323	34.385	209	50.56	288	54.95	59	28.69	235	40.024	198	30.10	226
31	51.957	324	16.52	287	34.594	248	47.68	258	55.54	68	26.34	209	40.222	227	27.84	201
Feb. 10	52.281	378	13.65	240	34.842	281	45.10	217	56.22	75	24.25	179	40.449	253	25.83	170
20	52.659	420	11.25	184	35.123	307	42.93	168	56.97	82	22.46	145	40.702	273	24.13	131
März 2	53.079	449	9.41	123	35.430	327	41.25	113	57.79	85	21.01	109	40.975	289	22.82	86
12	53.528	467	8.18	57	35.757	339	40.12	54	58.64	88	19.92	71	41.264	299	21.96	39
22	53.995	472	7.61	11	36.096	344	39.58	7	59.52	89	19.21	33	41.563	306	21.57	10
Apr. 1	54.467	463	7.72	76	36.440	344	39.65	65	60.41	88	18.88	6	41.869	307	21.67	57
11	54.930	444	8.48	137	36.784	335	40.30	121	61.29	87	18.94	44	42.176	302	22.24	103
21	55.374	411	9.85	192	37.119	319	41.51	172	62.16	83	19.38	81	42.478	294	23.27	143
Mai 1	55.785	370	11.77	241	37.438	298	43.23	216	62.99	79	20.19	117	42.772	279	24.70	177
11	56.155	320	14.18	279	37.736	270	45.39	251	63.78	72	21.36	151	43.051	259	26.47	205
21	56.475	261	16.97	310	38.006	235	47.90	279	64.50	65	22.87	181	43.310	233	28.52	226
31	56.736	196	20.07	330	38.241	196	50.69	297	65.15	55	24.68	207	43.543	203	30.78	239
Juni 10	56.932	126	23.37	340	38.437	152	53.66	308	65.70	45	26.75	227	43.746	168	33.17	245
20	57.058	54	26.77	341	38.589	104	56.74	308	66.15	34	29.02	243	43.914	129	35.62	245
29*)	28 57.112	19	30.18	332	38.693	54	59.82	302	66.49	21	31.45	251	44.043	87	38.07	237
Juli 9	57.093	92	33.50	316	1 38.747	4	62.84	287	1 66.70	9	33.96	253	3 44.130	43	40.44	225
19	57.001	162	36.66	292	38.751	46	65.71	266	66.79	3	36.49	246	44.173	1	42.69	207
29	56.839	228	39.58	262	38.705	95	68.37	240	66.76	16	38.95	231	44.172	44	44.76	184
Aug. 8	56.611	287	42.20	226	38.610	139	70.77	207	66.60	28	41.26	209	44.128	84	46.60	159
18	56.324	338	44.46	184	38.471	179	72.84	172	66.32	38	43.35	179	44.044	120	48.19	130
28	55.986	379	46.30	140	38.292	210	74.56	131	65.94	46	45.14	142	43.924	150	49.49	100
Sept. 7	55.607	408	47.70	90	38.082	235	75.87	90	65.48	52	46.56	98	43.774	173	50.49	67
17	55.199	426	48.60	40	37.847	249	76.77	45	64.96	57	47.54	51	43.601	187	51.16	33
27	54.773	429	49.00	12	37.598	254	77.22	1	64.39	58	48.05	1	43.414	191	51.49	2
Okt. 7	54.344	419	48.88	66	37.344	246	77.21	48	63.81	57	48.06	51	43.223	186	51.47	37
17	53.925	394	48.22	119	37.098	230	76.73	95	63.24	52	47.55	101	43.037	171	51.10	71
27	53.531	357	47.03	169	36.868	203	75.78	139	62.72	45	46.54	148	42.866	148	50.39	106
Nov. 6	53.174	306	45.34	218	36.665	167	74.39	183	62.27	36	45.06	189	42.718	116	49.33	140
16	52.868	245	43.16	262	36.498	123	72.56	223	61.91	24	43.17	224	42.602	79	47.93	169
26	52.623	175	40.54	299	36.375	75	70.33	257	61.67	11	40.93	251	42.523	36	46.24	196
Dez. 6	52.448	98	37.55	328	36.300	23	67.76	285	61.56	2	38.42	268	42.487	8	44.28	219
16	52.350	18	34.27	348	36.277	31	64.91	304	61.58	15	35.74	277	42.495	54	42.09	234
26	52.332	63	30.79	356	36.308	85	61.87	312	61.73	29	32.97	277	42.549	97	39.75	243
36	52.395		27.23		36.393		58.75		62.02		30.20		42.646		37.32	
Mittl. Ort	54.192		36.87		36.121		66.36		58.86		25.37		41.495		44.46	
sec δ, tg δ	1.928		+1.649		1.282		+0.802		3.150		−2.987		1.067		+0.374	
a, *a*′	+0.9		+2.0		+2.0		+3.0		+7.0		+3.0		+2.6		+3.7	
b, *b*′	+0.01		+0.99		+0.01		+0.99		−0.03		+0.99		0.00		+0.98	

*) Bei Stern 699), 698) und 703) lies Juni 30

Tag	704) λ Pavonis AR.	Δ	704) λ Pavonis Dekl.	Δ	705) β Lyrae AR.	Δ	705) β Lyrae Dekl.	Δ	707) ο Draconis AR.	Δ	707) ο Draconis Dekl.	Δ	706) σ Sagittarii AR.	Δ	706) σ Sagittarii Dekl.	Δ
1931	$18^h\,45^m$		$-62°\,16'$		$18^h\,47^m$		$+33°\,16'$		$18^h\,50^m$		$+59°\,17'$		$18^h\,50^m$		$-26°\,23'$	
Jan. 1	46.38	26	18.19	233	30.002	106	44.66	296	8.123	61	64.75	354	57.398	160	13.09	29
11	46.64	34	15.86	224	30.108	151	41.70	290	8.184	141	61.21	350	57.558	200	12.80	27
21	46.98	41	13.62	210	30.259	192	38.80	274	8.325	216	57.71	331	57.758	234	12.53	27
31	47.39	47	11.52	189	30.451	229	36.06	246	8.541	285	54.40	302	57.992	264	12.26	27
Feb. 10	47.86	52	9.63	167	30.680	259	33.60	210	8.826	345	51.38	261	58.256	289	11.99	29
20	48.38	57	7.96	140	30.939	286	31.50	164	9.171	396	48.77	209	58.545	308	11.70	32
März 2	48.95	59	6.56	112	31.225	306	29.86	113	9.567	434	46.68	151	58.853	322	11.38	37
12	49.54	61	5.44	82	31.531	319	28.73	58	10.001	462	45.17	87	59.175	333	11.01	40
22	50.15	62	4.62	50	31.850	327	28.15	0	10.463	475	44.30	20	59.508	341	10.61	44
Apr. 1	50.77	62	4.12	19	32.177	329	28.15	56	10.938	477	44.10	45	59.849	344	10.17	46
11	51.39	62	3.93	13	32.506	324	28.71	109	11.415	465	44.55	109	60.193	342	9.71	48
21	52.01	60	4.06	46	32.830	313	29.80	159	11.880	441	45.64	167	60.535	336	9.23	47
Mai 1	52.61	57	4.52	77	33.143	295	31.39	200	12.321	406	47.31	219	60.871	325	8.76	43
11	53.18	53	5.29	108	33.438	272	33.39	236	12.727	360	49.50	263	61.196	308	8.33	37
21	53.71	48	6.37	134	33.710	243	35.75	263	13.087	306	52.13	298	61.504	285	7.96	30
31	54.19	43	7.71	159	33.953	207	38.38	282	13.393	243	55.11	324	61.789	256	7.66	20
Juni 10	54.62	36	9.30	181	34.160	168	41.20	292	13.636	175	58.35	340	62.045	222	7.46	10
20	54.98	27	11.11	198	34.328	123	44.12	294	13.811	102	61.75	346	62.267	182	7.36	2
30	55.25	20	13.09	208	34.451	77	47.06	289	13.913	27	65.21	344	62.449	138	7.38	13
Juli 9	[4] 55.45	11	15.17	214	[4] 34.528	29	49.95	276	[5] 13.940	48	68.65	333	[5] 62.587	92	7.51	23
19	55.56	2	17.31	212	34.557	20	52.71	258	13.892	122	71.98	315	62.679	43	7.74	31
29	55.58	6	19.43	204	34.537	66	55.29	233	13.770	192	75.13	288	62.722	4	8.05	37
Aug. 8	55.52	15	21.47	187	34.471	110	57.62	204	13.578	257	78.01	256	62.718	50	8.42	41
18	55.37	22	23.34	164	34.361	149	59.66	170	13.321	314	80.57	219	62.668	91	8.83	41
28	55.15	28	24.98	134	34.212	182	61.36	133	13.007	361	82.76	176	62.577	126	9.24	39
Sept. 7	54.87	33	26.32	98	34.030	207	62.69	94	12.646	399	84.52	130	62.451	153	9.63	34
17	54.54	36	27.30	59	33.823	223	63.63	53	12.247	423	85.82	80	62.298	171	9.97	26
27	54.18	38	27.89	16	33.600	229	64.16	10	11.824	434	86.62	28	62.127	177	10.23	18
Okt. 7	53.80	37	28.05	29	33.371	224	64.26	34	11.390	432	86.90	25	61.950	173	10.41	8
17	53.43	35	27.76	73	33.147	210	63.92	78	10.958	415	86.65	79	61.777	158	10.49	3
27	53.08	30	27.03	115	32.937	187	63.14	121	10.543	384	85.86	132	61.619	131	10.46	12
Nov. 6	52.78	24	25.88	152	32.750	154	61.93	162	10.159	340	84.54	184	61.488	96	10.34	20
16	52.54	15	24.36	185	32.596	115	60.31	200	9.819	285	82.70	231	61.392	55	10.14	26
26	52.39	7	22.51	209	32.481	70	58.31	233	9.534	220	80.39	272	61.337	9	9.88	30
Dez. 6	52.32	2	20.42	227	32.411	22	55.98	261	9.314	147	77.67	308	61.328	39	9.58	32
16	52.34	11	18.15	236	32.389	27	53.37	281	9.167	70	74.59	333	61.367	88	9.26	32
26	52.45	21	15.79	238	32.416	77	50.56	292	9.097	12	71.26	347	61.455	134	8.94	32
36	52.66		13.41		32.493		47.64		9.109		67.79		61.589		8.62	
Mittl. Ort	49.68		8.52		31.930		53.69		11.074		72.82		59.238		2.93	
sec δ, tg δ	2.149		−1.902		1.196		+0.656		1.959		+1.684		1.116		−0.496	
a, *a'*	+5.6		+4.0		+2.2		+4.1		+0.9		+4.4		+3.7		+4.4	
b, *b'*	−0.03		+0.98		+0.01		+0.98		+0.02		+0.98		−0.01		+0.98	

Tag	709) ϑ Serpentis pr. AR.		709) Dekl.		708) λ Telescopii AR.		708) Dekl.		711) *R* Lyrae AR.		711) Dekl.		713) γ Lyrae AR.		713) Dekl.	
1931	$18^h 52^m$		+4° 6′		$18^h 52^m$		−53° 1′		$18^h 53^m$		+43° 50′		$18^h 56^m$		+32° 35′	
Jan. 1	45.676	128	34.92	157	54.155	208	60.56	189	11.963	86	66.94	326	19.790	97	29.18	291
11	45.804	164	33.35	154	54.363	270	58.67	183	12.049	140	63.68	322	19.887	141	26.27	286
21	45.968	195	31.81	145	54.633	324	56.84	173	12.189	189	60.46	305	20.028	182	23.41	272
31	46.163	223	30.36	128	54.957	370	55.11	159	12.378	235	57.41	277	20.210	220	20.69	246
Feb. 10	46.386	246	29.08	105	55.327	409	53.52	143	12.613	275	54.64	237	20.430	251	18.23	210
20	46.632	265	28.03	78	55.736	440	52.09	124	12.888	308	52.27	190	20.681	278	16.13	167
März 2	46.897	280	27.25	47	56.176	463	50.85	104	13.196	333	50.37	135	20.959	299	14.46	116
12	47.177	291	26.78	13	56.639	480	49.81	82	13.529	351	49.02	75	21.258	315	13.30	62
22	47.468	298	26.65	22	57.119	491	48.99	59	13.880	362	48.27	12	21.573	324	12.68	6
Apr. 1	47.766	301	26.87	55	57.610	494	48.40	36	14.242	365	48.15	49	21.897	328	12.62	51
11	48.067	300	27.42	87	58.104	491	48.04	10	14.607	359	48.64	108	22.225	325	13.13	104
21	48.367	294	28.29	115	58.595	480	47.94	15	14.966	346	49.72	162	22.550	316	14.17	153
Mai 1	48.661	283	29.44	138	59.075	461	48.09	40	15.312	325	51.34	210	22.866	299	15.70	195
11	48.944	267	30.82	155	59.536	435	48.49	65	15.637	297	53.44	251	23.165	278	17.65	232
21	49.211	245	32.37	167	59.971	399	49.14	89	15.934	261	55.95	283	23.443	250	19.97	259
31	49.456	219	34.04	174	60.370	356	50.03	113	16.195	220	58.78	305	23.693	215	22.56	279
Juni 10	49.675	187	35.78	175	60.726	305	51.16	132	16.415	173	61.83	319	23.908	177	25.35	291
20	49.862	151	37.53	171	61.031	247	52.48	149	16.588	122	65.02	324	24.085	134	28.26	294
30	50.013	112	39.24	162	61.278	182	53.97	162	16.710	68	68.26	321	24.219	87	31.20	289
Juli 9	6 50.125	70	40.86	151	6 61.460	114	55.59	169	6 16.778	13	71.47	309	7 24.306	40	34.09	278
19	50.195	28	42.37	137	61.574	45	57.28	171	16.791	42	74.56	291	24.346	9	36.87	260
29	50.223	15	43.74	119	61.619	25	58.99	167	16.749	95	77.47	266	24.337	56	39.47	237
Aug. 8	50.208	55	44.93	99	61.594	91	60.66	157	16.654	144	80.13	235	24.281	101	41.84	208
18	50.153	92	45.92	80	61.503	152	62.23	141	16.510	188	82.48	200	24.180	141	43.92	176
28	50.061	122	46.72	60	61.351	203	63.64	118	16.322	225	84.48	160	24.039	174	45.68	140
Sept. 7	49.939	145	47.32	39	61.148	243	64.82	91	16.097	253	86.08	116	23.865	200	47.08	102
17	49.794	161	47.71	17	60.905	269	65.73	59	15.844	272	87.24	71	23.665	217	48.10	60
27	49.633	167	47.88	4	60.636	281	66.32	24	15.572	281	87.95	23	23.448	225	48.70	19
Okt. 7	49.466	163	47.84	24	60.355	276	66.56	13	15.291	278	88.18	26	23.223	222	48.89	25
17	49.303	149	47.60	46	60.079	255	66.43	50	15.013	264	87.92	75	23.001	210	48.64	69
27	49.154	127	47.14	66	59.824	220	65.93	84	14.749	240	87.17	124	22.791	188	47.95	111
Nov. 6	49.027	98	46.48	86	59.604	171	65.09	116	14.509	205	85.93	171	22.603	156	46.84	153
16	48.929	62	45.62	106	59.433	111	63.93	144	14.304	164	84.22	214	22.447	119	45.31	191
26	48.867	22	44.56	122	59.322	45	62.49	165	14.140	115	82.08	253	22.328	77	43.40	225
Dez. 6	48.845	20	43.34	137	59.277	27	60.84	180	14.025	61	79.55	284	22.251	29	41.15	253
16	48.865	63	41.97	148	59.304	98	59.04	189	13.964	5	76.71	307	22.222	20	38.62	274
26	48.928	104	40.49	154	59.402	168	57.15	192	13.959	51	73.64	321	22.242	67	35.88	286
36	49.032		38.95		59.570		55.23		14.010		70.43		22.309		33.02	
Mittl. Ort	47.354		44.59		56.743		50.25		14.154		75.33		21.716		37.81	
sec δ, tg δ	1.003		+0.072		1.663		−1.328		1.387		+0.961		1.187		+0.639	
a, *a′*	+3.0		+4.6		+4.8		+4.6		+1.8		+4.6		+2.2		+4.9	
b, *b′*	0.00		+0.97		−0.02		+0.97		+0.01		+0.97		+0.01		+0.97	

Tag	716) ζ Aquilae AR.		716) ζ Aquilae Dekl.		717) λ Aquilae AR.		717) λ Aquilae Dekl.		718) α Coron. austr. AR.		718) α Coron. austr. Dekl.		720) π Sagittarii AR.		720) π Sagittarii Dekl.	
1931	19h 2m		+13° 45′		19h 2m		−4° 59′		19h 4m		−38° 0′		19h 5m		−21° 8′	
Jan. 1	12.585	110	25.25	207	33.566	126	24.59	101	44.736	160	60.56	105	37.910	138	16.06	0
11	12.695	147	23.18	203	33.692	162	25.60	99	44.896	207	59.51	104	38.048	177	16.06	2
21	12.842	180	21.15	192	33.854	194	26.59	92	45.103	247	58.47	102	38.225	211	16.04	4
31	13.022	211	19.23	172	34.048	222	27.51	80	45.350	282	57.45	98	38.436	241	16.00	9
Feb. 10	13.233	237	17.51	145	34.270	245	28.31	63	45.632	312	56.47	92	38.677	265	15.91	15
20	13.470	258	16.06	112	34.515	264	28.94	42	45.944	337	55.55	87	38.942	286	15.76	23
März 2	13.728	276	14.94	73	34.779	281	29.36	19	46.281	356	54.68	81	39.228	302	15.53	32
12	14.004	288	14.21	32	35.060	292	29.55	7	46.637	370	53.87	74	39.530	315	15.21	42
22	14.292	298	13.89	11	35.352	301	29.48	32	47.007	381	53.13	65	39.845	325	14.79	51
Apr. 1	14.590	303	14.00	54	35.653	306	29.16	57	47.388	387	52.48	57	40.170	329	14.28	60
11	14.893	302	14.54	94	35.959	306	28.59	80	47.775	387	51.91	45	40.499	331	13.68	66
21	15.195	297	15.48	130	36.265	302	27.79	100	48.162	383	51.46	33	40.830	328	13.02	70
Mai 1	15.492	286	16.78	160	36.567	294	26.79	115	48.545	372	51.13	19	41.158	318	12.32	70
11	15.778	270	18.38	186	36.861	279	25.64	126	48.917	354	50.94	3	41.476	305	11.62	69
21	16.048	249	20.24	204	37.140	259	24.38	132	49.271	330	50.91	13	41.781	284	10.93	63
31	16.297	221	22.28	216	37.399	234	23.06	135	49.601	298	51.04	30	42.065	258	10.30	56
Juni 10	16.518	189	24.44	222	37.633	203	21.71	132	49.899	262	51.34	46	42.323	226	9.74	47
20	16.707	152	26.66	220	37.836	168	20.39	125	50.161	217	51.80	62	42.549	189	9.27	35
30	16.859	112	28.86	214	38.004	128	19.14	116	50.378	168	52.42	76	42.738	147	8.92	23
Juli 9	[8] 16.971	70	31.00	203	[3] 38.132	87	17.98	104	[9] 50.546	116	53.18	87	[9] 42.885	102	8.69	12
19	17.041	26	33.03	186	38.219	43	16.94	91	50.662	61	54.05	95	42.987	55	8.57	0
29	17.067	18	34.89	167	38.262	0	16.03	76	50.723	6	55.00	98	43.042	9	8.57	9
Aug. 8	17.049	59	36.56	144	38.262	42	15.27	61	50.729	47	55.98	98	43.051	36	8.66	17
18	16.990	96	38.00	119	38.220	79	14.66	45	50.682	95	56.96	93	43.015	77	8.83	23
28	16.894	127	39.19	93	38.141	112	14.21	31	50.587	136	57.89	83	42.938	113	9.06	25
Sept. 7	16.767	153	40.12	66	38.029	137	13.90	18	50.451	170	58.72	68	42.825	141	9.31	26
17	16.614	169	40.78	36	37.892	154	13.72	4	50.281	193	59.40	51	42.684	159	9.57	25
27	16.445	176	41.14	7	37.738	162	13.68	8	50.088	203	59.91	31	42.525	169	9.82	21
Okt. 7	16.269	175	41.21	23	37.576	159	13.76	21	49.885	201	60.22	9	42.356	167	10.03	16
17	16.094	163	40.98	52	37.417	147	13.97	33	49.684	187	60.31	14	42.189	154	10.19	12
27	15.931	143	40.46	81	37.270	126	14.30	44	49.497	161	60.17	36	42.035	132	10.31	6
Nov. 6	15.788	114	39.65	109	37.144	97	14.74	56	49.336	125	59.81	56	41.903	101	10.37	3
16	15.674	80	38.56	136	37.047	62	15.30	67	49.211	80	59.25	73	41.802	63	10.40	0
26	15.594	41	37.20	159	36.985	22	15.97	78	49.131	30	58.52	87	41.739	21	10.40	2
Dez. 6	15.553	1	35.61	179	36.963	19	16.75	87	49.101	23	57.65	98	41.718	24	10.38	3
16	15.554	44	33.82	194	36.982	62	17.62	95	49.124	77	56.67	104	41.742	69	10.35	3
26	15.598	85	31.88	202	37.044	102	18.57	97	49.201	131	55.63	108	41.811	114	10.32	3
36	15.683		29.86		37.146		19.54		49.332		54.55		41.925		10.29	
Mittl. Ort	14.298		34.45		35.239		14.63		46.753		49.60		39.666		5.49	
sec δ, tg δ	1.030		+0.245		1.004		−0.087		1.269		−0.782		1.072		−0.387	
a, *a′*	+2.8		+5.4		+3.2		+5.4		+4.1		+5.6		+3.6		+5.7	
b, *b′*	0.00		+0.96		0.00		+0.96		−0.01		+0.96		−0.01		+0.96	

Tag	723) δ Draconis AR.		723) δ Draconis Dekl.		724) ϑ Lyrae AR.		724) ϑ Lyrae Dekl.		725) ω Aquilae AR.		725) ω Aquilae Dekl.		726) κ Cygni AR.		726) κ Cygni Dekl.	
1931	19h 12m		+67° 31′		19h 13m		+38° 0′		19h 14m		+11° 27′		19h 15m		+53° 13′	
Jan. 1	28.72s	2	78.39″	350	56.293s	68	27.95″	303	32.956s	99	61.88″	190	27.921s	35	79.15″	338
11	28.70	9	74.89	353	56.361	117	24.92	302	33.055	137	59.98	188	27.956	100	75.77	339
21	28.79	19	71.36	341	56.478	162	21.90	290	33.192	170	58.10	177	28.056	165	72.38	327
31	28.98	29	67.95	317	56.640	205	19.00	266	33.362	201	56.33	160	28.221	225	69.11	304
Feb. 10	29.27	38	64.78	282	56.845	242	16.34	232	33.563	227	54.73	135	28.446	278	66.07	267
20	29.65	46	61.96	235	57.087	275	14.02	189	33.790	250	53.38	103	28.724	325	63.40	221
März 2	30.11	53	59.61	179	57.362	301	12.13	138	34.040	269	52.35	68	29.049	363	61.19	167
12	30.64	57	57.82	118	57.663	321	10.75	82	34.309	283	51.67	28	29.412	392	59.52	106
22	31.21	60	56.64	52	57.984	335	9.93	23	34.592	294	51.39	13	29.804	412	58.46	43
Apr. 1	31.81	61	56.12	14	58.319	343	9.70	35	34.886	301	51.52	53	30.216	421	58.03	23
11	32.42	60	56.26	80	58.662	342	10.05	92	35.187	303	52.05	92	30.637	419	58.26	85
21	33.02	58	57.06	140	59.004	336	10.97	146	35.490	300	52.97	126	31.056	407	59.11	145
Mai 1	33.60	53	58.46	196	59.340	322	12.43	192	35.790	291	54.23	156	31.463	384	60.56	198
11	34.13	48	60.42	245	59.662	300	14.35	233	36.081	278	55.79	179	31.847	353	62.54	244
21	34.61	41	62.87	285	59.962	271	16.68	266	36.359	257	57.58	198	32.200	312	64.98	283
31	35.02	33	65.72	315	60.233	236	19.34	290	36.616	232	59.56	209	32.512	263	67.81	311
Juni 10	35.35	24	68.87	338	60.469	196	22.24	305	36.848	201	61.65	214	32.775	209	70.92	332
20	35.59	14	72.25	350	60.665	150	25.29	312	37.049	165	63.79	213	32.984	148	74.24	343
30	35.73	5	75.75	354	60.815	101	28.41	311	37.214	125	65.92	207	33.132	85	77.67	344
Juli 10	35.78	6	79.29	348	60.916	51	31.52	302	37.339	84	67.99	196	33.217	19	81.11	338
19	35.72	15	82.77	334	60.967	2	34.54	287	37.423	39	69.95	181	33.236	47	84.49	323
29	35.57	25	86.11	314	60.965	53	37.41	265	37.462	4	71.76	162	33.189	111	87.72	302
Aug. 8	35.32	34	89.25	285	60.912	100	40.06	238	37.458	46	73.38	140	33.078	170	90.74	274
18	34.98	41	92.10	251	60.812	144	42.44	205	37.412	84	74.78	117	32.908	224	93.48	239
28	34.57	48	94.61	212	60.668	181	44.49	169	37.328	118	75.95	91	32.684	271	95.87	200
Sept. 7	34.09	53	96.73	167	60.487	212	46.18	129	37.210	143	76.86	65	32.413	308	97.87	157
17	33.56	58	98.40	119	60.275	232	47.47	86	37.067	162	77.51	39	32.105	335	99.44	110
27	32.98	60	99.59	68	60.043	244	48.33	42	36.905	171	77.90	12	31.770	350	100.54	60
Okt. 7	32.38	60	100.27	15	59.799	245	48.75	5	36.734	171	78.02	16	31.420	353	101.14	8
17	31.78	59	100.42	41	59.554	236	48.70	51	36.563	162	77.86	44	31.067	344	101.22	44
27	31.19	57	100.01	95	59.318	216	48.19	97	36.401	143	77.42	71	30.723	323	100.78	98
Nov. 6	30.62	52	99.06	149	59.102	187	47.22	142	36.258	116	76.71	97	30.400	290	99.80	149
16	30.10	45	97.57	201	58.915	152	45.80	185	36.142	84	75.74	122	30.110	247	98.31	198
26	29.65	38	95.56	248	58.763	109	43.95	223	36.058	47	74.52	144	29.863	195	96.33	242
Dez. 6	29.27	29	93.08	287	58.654	62	41.72	256	36.011	7	73.08	163	29.668	136	93.91	280
16	28.98	20	90.21	319	58.592	13	39.16	280	36.004	35	71.45	177	29.532	73	91.11	309
26	28.78	9	87.02	340	58.579	38	36.36	296	36.039	76	69.68	186	29.459	6	88.02	329
36	28.69		83.62		58.617		33.40		36.115		67.82		29.453		84.73	
Mittl. Ort	32.65		84.36		58.346		35.40		34.651		70.95		30.540		85.60	
sec δ, tg δ	2.618		+2.419		1.269		+0.782		1.020		+0.203		1.671		+1.339	
a, *a′*	0.0		+6.2		+2.1		+6.4		+2.8		+6.4		+1.4		+6.5	
b, *b′*	+0.05		+0.95		+0.02		+0.95		0.00		+0.95		+0.03		+0.95	

Tag	729) τ Draconis				728) α Sagittarii				730) δ Aquilae				732) β Cygni			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	19h 16m		+73° 13'		19h 19m		−40° 44'		19h 21m		+2° 58'		19h 27m		+27° 48'	
Jan. 1	48.32	9	35.10	346	4.446	146	62.43	126	59.510	101	23.60	141	54.433	67	41.61	261
11	48.23	5	31.64	351	4.592	194	61.17	128	59.611	136	22.19	138	54.500	110	39.00	262
21	48.28	20	28.13	342	4.786	237	59.89	126	59.747	170	20.81	130	54.610	149	36.38	252
31	48.48	34	24.71	320	5.023	276	58.63	123	59.917	199	19.51	115	54.759	186	33.86	231
Feb. 10	48.82	46	21.51	286	5.299	309	57.40	117	60.116	225	18.36	95	54.945	219	31.55	202
20	49.28	57	18.65	240	5.608	336	56.23	111	60.341	247	17.41	69	55.164	247	29.53	164
März 2	49.85	66	16.25	187	5.944	358	55.12	103	60.588	266	16.72	39	55.411	272	27.89	119
12	50.51	72	14.38	126	6.302	377	54.09	94	60.854	281	16.33	8	55.683	292	26.70	70
22	51.23	76	13.12	62	6.679	390	53.15	85	61.135	292	16.25	26	55.975	307	26.00	17
Apr. 1	51.99	78	12.50	5	7.069	399	52.30	72	61.427	300	16.51	59	56.282	317	25.83	35
11	52.77	78	12.55	69	7.468	402	51.58	59	61.727	304	17.10	89	56.599	320	26.18	87
21	53.55	74	13.24	131	7.870	399	50.99	43	62.031	303	17.99	117	56.919	317	27.05	134
Mai 1	54.29	68	14.55	188	8.269	391	50.56	26	62.334	296	19.16	139	57.236	309	28.39	176
11	54.97	60	16.43	236	8.660	374	50.30	8	62.630	284	20.55	157	57.545	293	30.15	213
21	55.57	51	18.79	278	9.034	352	50.22	12	62.914	266	22.12	170	57.838	271	32.28	241
31	56.08	41	21.57	310	9.386	321	50.34	32	63.180	242	23.82	176	58.109	243	34.69	263
Juni 10	56.49	28	24.67	333	9.707	284	50.66	51	63.422	213	25.58	178	58.352	208	37.32	277
20	56.77	16	28.00	348	9.991	239	51.17	69	63.635	178	27.36	174	58.560	169	40.09	282
30	56.93	3	31.48	352	10.230	189	51.86	86	63.813	140	29.10	167	58.729	126	42.91	280
Juli 10	56.96	11	35.00	349	10.419	135	52.72	99	63.953	98	30.77	154	58.855	80	45.71	272
19	56.85	23	38.49	337	10.554	78	53.71	109	64.051	55	32.31	140	58.935	32	48.43	259
29	56.62	35	41.86	317	10.632	21	54.80	113	64.106	11	33.71	123	58.967	15	51.02	239
Aug. 8	56.27	47	45.03	291	10.653	35	55.93	114	64.117	31	34.94	104	58.952	60	53.41	214
18	55.80	57	47.94	258	10.618	88	57.07	110	64.086	70	35.98	84	58.892	102	55.55	185
28	55.23	65	50.52	220	10.530	132	58.17	99	64.016	104	36.82	65	58.790	138	57.40	153
Sept. 7	54.58	73	52.72	177	10.398	169	59.16	85	63.912	131	37.47	44	58.652	168	58.93	118
17	53.85	78	54.49	129	10.229	196	60.01	66	63.781	150	37.91	23	58.484	189	60.11	81
27	53.07	81	55.78	79	10.033	210	60.67	43	63.631	161	38.14	3	58.295	202	60.92	42
Okt. 7	52.26	83	56.57	26	9.823	212	61.10	20	63.470	162	38.17	17	58.093	204	61.34	2
17	51.43	82	56.83	29	9.611	200	61.30	7	63.308	153	38.00	35	57.889	197	61.36	38
27	50.61	78	56.54	84	9.411	177	61.23	33	63.155	136	37.65	55	57.692	181	60.98	78
Nov. 6	49.83	73	55.70	138	9.234	141	60.90	56	63.019	109	37.10	74	57.511	157	60.20	118
16	49.10	65	54.32	190	9.093	99	60.34	78	62.910	79	36.36	91	57.354	124	59.02	154
26	48.45	55	52.42	238	8.994	49	59.56	96	62.831	42	35.45	107	57.230	88	57.48	188
Dez. 6	47.90	44	50.04	279	8.945	5	58.60	111	62.789	2	34.38	121	57.142	46	55.60	217
16	47.46	32	47.25	312	8.950	60	57.49	120	62.787	37	33.17	131	57.096	3	53.43	239
26	47.14	18	44.13	336	9.010	114	56.29	127	62.824	77	31.86	137	57.093	41	51.04	254
36	46.96		40.77		9.124		55.02		62.901		30.49		57.134		48.50	
Mittl. Ort	53.44		40.46		6.484		50.63		61.167		33.12		56.290		49.06	
sec δ, tg δ	3.465		+3.318		1.320		−0.862		1.001		+0.052		1.131		+0.528	
a, *a'*	−1.1		+6.6		+4.2		+6.8		+3.0		+7.0		+2.4		+7.5	
b, *b'*	+0.07		+0.94		−0.02		+0.94		0.00		+0.94		+0.01		+0.93	

Tag	733) ι Cygni AR.	Δ	733) ι Cygni Dekl.	Δ	736) *h* Sagittarii AR.	Δ	736) *h* Sagittarii Dekl.	Δ	738) ϑ Cygni AR.	Δ	738) ϑ Cygni Dekl.	Δ	742) δ Cygni AR.	Δ	742) δ Cygni Dekl.	Δ
1931	$19^h 27^m$		+51° 34′		$19^h 32^m$		−25° 2′		$19^h 34^m$		+50° 3′		$19^h 42^m$		+44° 57′	
Jan. 1	55.464	20	49.58	330	28.867	114	26.27	33	32.971	15	32.30	324	46.852	18	35.99	310
11	55.484	83	46.28	334	28.981	154	25.94	37	32.986	76	29.06	329	46.870	72	32.89	315
21	55.567	145	42.94	325	29.135	190	25.57	41	33.062	135	25.77	321	46.942	125	29.74	309
31	55.712	203	39.69	303	29.325	221	25.16	45	33.197	191	22.56	301	47.067	176	26.65	291
Feb. 10	55.915	256	36.66	270	29.546	250	24.71	51	33.388	242	19.55	269	47.243	221	23.74	261
20	56.171	303	33.96	227	29.796	274	24.20	58	33.630	289	16.86	228	47.464	264	21.13	220
März 2	56.474	342	31.69	174	30.070	294	23.62	64	33.919	328	14.58	176	47.728	300	18.93	172
12	56.816	373	29.95	115	30.364	312	22.98	71	34.247	359	12.82	118	48.028	329	17.21	117
22	57.189	395	28.80	53	30.676	326	22.27	77	34.606	382	11.64	57	48.357	352	16.04	56
Apr. 1	57.584	407	28.27	11	31.002	336	21.50	82	34.988	396	11.07	6	48.709	367	15.48	5
11	57.991	409	28.38	74	31.338	341	20.68	84	35.384	400	11.13	69	49.076	373	15.53	65
21	58.400	401	29.12	133	31.679	342	19.84	83	35.784	395	11.82	129	49.449	371	16.18	123
Mai 1	58.801	384	30.45	188	32.021	338	19.01	80	36.179	379	13.11	182	49.820	359	17.41	175
11	59.185	356	32.33	235	32.359	327	18.21	74	36.558	354	14.93	230	50.179	340	19.16	223
21	59.541	320	34.68	275	32.686	309	17.47	65	36.912	321	17.23	271	50.519	312	21.39	262
31	59.861	275	37.43	305	32.995	286	16.82	54	37.233	279	19.94	302	50.831	276	24.01	292
Juni 10	60.136	224	40.48	328	33.281	256	16.28	40	37.512	230	22.96	324	51.107	234	26.93	315
20	60.360	166	43.76	340	33.537	219	15.88	26	37.742	176	26.20	338	51.341	185	30.08	329
30	60.526	106	47.16	344	33.756	177	15.62	11	37.918	116	29.58	344	51.526	131	33.37	333
Juli 10	60.632	42	50.60	340	33.933	132	15.51	4	38.034	56	33.02	340	51.657	76	36.70	331
19	[15] 60.674	21	54.00	328	[16] 34.065	84	15.55	17	[16] 38.090	7	36.42	328	[18] 51.733	19	40.01	320
29	60.653	84	57.28	308	34.149	35	15.72	29	38.083	68	39.70	309	51.752	39	43.21	302
Aug. 8	60.569	143	60.36	281	34.184	13	16.01	38	38.015	126	42.79	284	51.713	92	46.23	278
18	60.426	197	63.17	249	34.171	58	16.39	44	37.889	180	45.63	253	51.621	143	49.01	248
28	60.229	245	65.66	211	34.113	97	16.83	46	37.709	226	48.16	216	51.478	188	51.49	213
Sept. 7	59.984	283	67.77	170	34.016	130	17.29	46	37.483	265	50.32	175	51.290	224	53.62	173
17	59.701	311	69.47	124	33.886	155	17.75	42	37.218	294	52.07	130	51.066	253	55.35	130
27	59.390	329	70.71	75	33.731	168	18.17	36	36.924	313	53.37	82	50.813	271	56.65	85
Okt. 7	59.061	335	71.46	24	33.563	171	18.53	28	36.611	319	54.19	32	50.542	278	57.50	36
17	58.726	328	71.70	28	33.392	164	18.81	18	36.292	315	54.51	20	50.264	275	57.86	14
27	58.398	311	71.42	81	33.228	145	18.99	8	35.977	299	54.31	72	49.989	261	57.72	64
Nov. 6	58.087	281	70.61	133	33.083	119	19.07	2	35.678	271	53.59	124	49.728	238	57.08	114
16	57.806	243	69.28	182	32.964	84	19.05	10	35.407	234	52.35	174	49.490	204	55.94	161
26	57.563	195	67.46	227	32.880	44	18.95	18	35.173	190	50.61	218	49.286	165	54.33	206
Dez. 6	57.368	140	65.19	267	32.836	0	18.77	25	34.983	138	48.43	258	49.121	118	52.27	244
16	57.228	81	62.52	298	32.836	44	18.52	29	34.845	82	45.85	291	49.003	68	49.83	276
26	57.147	18	59.54	319	32.880	87	18.23	34	34.763	22	42.94	313	48.935	14	47.07	299
36	57.129		56.35		32.967		17.89		34.741		39.81		48.921		44.08	
Mittl. Ort	58.012		55.23		30.603		14.67		35.450		37.58		49.124		41.12	
sec δ, tg δ	1.609		+1.261		1.104		−0.467		1.558		+1.194		1.413		+0.999	
a, *a′*	+1.5		+7.5		+3.6		+7.9		+1.6		+8.0		+1.9		+8.7	
b, *b′*	+0.03		+0.93		−0.01		+0.92		+0.03		+0.92		+0.03		+0.90	

Tag	741) γ Aquilae AR.		741) γ Aquilae Dekl.		743) δ Sagittae AR.		743) δ Sagittae Dekl.	
1931	19h 42m		+10° 26′		19h 44m		+18° 21′	
Jan. 1	57.085	73	29.59	175	16.925	63	38.86	214
11	57.158	110	27.84	174	16.988	101	36.72	214
21	57.268	143	26.10	166	17.089	137	34.58	206
31	57.411	175	24.44	150	17.226	171	32.52	189
Feb. 10	57.586	204	22.94	127	17.397	201	30.63	165
20	57.790	229	21.67	99	17.598	228	28.98	132
März 2	58.019	251	20.68	65	17.826	253	27.66	93
12	58.270	271	20.03	27	18.079	273	26.73	51
22	58.541	285	19.76	12	18.352	290	26.22	6
Apr. 1	58.826	297	19.88	50	18.642	301	26.16	40
11	59.123	304	20.38	89	18.943	308	26.56	85
21	59.427	306	21.27	123	19.251	310	27.41	125
Mai 1	59.733	301	22.50	153	19.561	305	28.66	162
11	60.034	292	24.03	177	19.866	294	30.28	192
21	60.326	276	25.80	196	20.160	277	32.20	217
31	60.602	252	27.76	209	20.437	253	34.37	235
Juni 10	60.854	224	29.85	215	20.690	224	36.72	245
20	61.078	191	32.00	215	20.914	188	39.17	249
30	61.269	153	34.15	210	21.102	148	41.66	247
Juli 10	61.422	110	36.25	200	21.250	106	44.13	238
19*)	[18] 61.532	67	38.25	185	[19] 21.356	60	46.51	224
29	61.599	23	40.10	168	21.416	15	48.75	206
Aug. 8	61.622	21	41.78	147	21.431	29	50.81	184
18	61.601	61	43.25	124	21.402	70	52.65	159
28	61.540	97	44.49	99	21.332	107	54.24	131
Sept. 7	61.443	127	45.48	75	21.225	137	55.55	102
17	61.316	149	46.23	49	21.088	160	56.57	70
27	61.167	162	46.72	22	20.928	174	57.27	38
Okt. 7	61.005	167	46.94	4	20.754	178	57.65	6
17	60.838	161	46.90	30	20.576	174	57.71	28
27	60.677	148	46.60	56	20.402	161	57.43	60
Nov. 6	60.529	126	46.04	81	20.241	139	56.83	93
16	60.403	98	45.23	105	20.102	111	55.90	123
26	60.305	65	44.18	127	19.991	78	54.67	150
Dez. 6	60.240	27	42.91	146	19.913	40	53.17	175
16	60.213	11	41.45	160	19.873	1	51.42	194
26	60.224	50	39.85	169	19.872	39	49.48	207
36	60.274		38.16		19.911		47.41	
Mittl. Ort	58.750		38.13		18.652		46.53	
sec δ, tg δ	1.017		+0.184		1.054		+0.332	
a, *a′*	+2.9		+8.7		+2.7		+8.8	
b, *b′*	+0.01		+0.90		+0.01		+0.90	

Tag	745) α Aquilae[1]) AR.		745) α Aquilae[1]) Dekl.		747) ε Draconis AR.		747) ε Draconis Dekl.	
1931	19h 47m		+8° 40′		19h 48m		+70° 5′	
Jan. 1	23.342	74	56.77	163	20.50	14	28.99	333
11	23.416	110	55.14	161	20.36	2	25.66	345
21	23.526	144	53.53	153	20.34	10	22.21	344
31	23.670	176	52.00	138	20.44	22	18.77	330
Feb. 10	23.846	203	50.62	116	20.66	33	15.47	303
20	24.049	229	49.46	88	20.99	43	12.44	265
März 2	24.278	251	48.58	55	21.42	51	9.79	216
12	24.529	270	48.03	19	21.93	59	7.63	159
22	24.799	286	47.84	18	22.52	64	6.04	97
Apr. 1	25.085	297	48.02	56	23.16	67	5.07	32
11	25.382	304	48.58	92	23.83	67	4.75	33
21	25.686	306	49.50	126	24.50	66	5.08	97
Mai 1	25.992	303	50.76	153	25.16	64	6.05	156
11	26.295	293	52.29	176	25.80	58	7.61	210
21	26.588	278	54.05	193	26.38	52	9.71	257
31	26.866	255	55.98	205	26.90	44	12.28	294
Juni 10	27.121	228	58.03	210	27.34	34	15.22	324
20	27.349	194	60.13	209	27.68	24	18.46	345
30	27.543	156	62.22	203	27.92	13	21.91	357
Juli 10	27.699	115	64.25	193	28.05	2	25.48	359
19*)	[20] 27.814	71	66.18	178	[20] 28.07	9	29.07	354
29	27.885	27	67.96	160	27.98	20	32.61	341
Aug. 8	27.912	16	69.56	140	27.78	30	36.02	319
18	27.896	57	70.96	117	27.48	39	39.21	292
28	27.839	93	72.13	94	27.09	48	42.13	258
Sept. 7	27.746	123	73.07	70	26.61	55	44.71	218
17	27.623	145	73.77	44	26.06	61	46.89	174
27	27.478	158	74.21	20	25.45	64	48.63	126
Okt. 7	27.320	163	74.41	5	24.81	67	49.89	73
17	27.157	159	74.36	29	24.14	67	50.62	19
27	26.998	145	74.07	54	23.47	66	50.81	37
Nov. 6	26.853	123	73.53	77	22.81	62	50.44	94
16	26.730	95	72.76	99	22.19	57	49.50	149
26	26.635	62	71.77	119	21.62	50	48.01	201
Dez. 6	26.573	26	70.58	136	21.12	42	46.00	247
16	26.547	13	69.22	149	20.70	32	43.53	287
26	26.560	51	67.73	159	20.38	21	40.66	317
36	26.611		66.14		20.17		37.49	
Mittl. Ort	24.994		65.52		24.96		31.76	
sec δ, tg δ	1.012		+0.153		2.937		+2.761	
a, *a′*	+2.9		+9.1		−0.2		+9.1	
b, *b′*	0.00		+0.89		+0.08		+0.89	

[1]) Die jährliche Parallaxe (0.″23) ist bereits berücksichtigt.

*) Bei Stern 745) und 747) lies Juli 20

Tag	749) β Aquilae AR.		749) β Aquilae Dekl.		748) ε Pavonis AR.		748) ε Pavonis Dekl.		750) ψ Cygni AR.		750) ψ Cygni Dekl.		751) ϑ¹ Sagittarii AR.		751) ϑ¹ Sagittarii Dekl.	
1931	19ʰ 51ᵐ		+6° 13′		19ʰ 52ᵐ		−73° 5′		19ʰ 53ᵐ		+52° 14′		19ʰ 55ᵐ		−35° 27′	
Jan. 1	53.800	68	50.74	151	34.17	12	57.25	299	48.187	21	74.57	320	13.077	95	65.24	102
11	53.868	104	49.23	149	34.29	26	54.26	304	48.166	42	71.37	328	13.172	139	64.22	110
21	53.972	138	47.74	141	34.55	39	51.22	301	48.208	105	68.09	325	13.311	181	63.12	114
31	54.110	169	46.33	127	34.94	51	48.21	291	48.313	166	64.84	310	13.492	218	61.98	118
Feb. 10	54.279	197	45.06	107	35.45	61	45.30	275	48.479	222	61.74	282	13.710	251	60.80	120
20	54.476	223	43.99	81	36.06	70	42.55	251	48.701	274	58.92	243	13.961	281	59.60	121
März 2	54.699	246	43.18	50	36.76	79	40.04	225	48.975	319	56.49	196	14.242	307	58.39	121
12	54.945	266	42.68	16	37.55	84	37.79	192	49.294	358	54.53	140	14.549	330	57.18	119
22	55.211	281	42.52	20	38.39	89	35.87	157	49.652	386	53.13	79	14.879	349	55.99	115
Apr. 1	55.492	295	42.72	55	39.28	93	34.30	119	50.038	406	52.34	16	15.228	363	54.84	110
11	55.787	303	43.27	89	40.21	94	33.11	78	50.444	416	52.18	47	15.591	374	53.74	101
21	56.090	306	44.16	120	41.15	95	32.33	37	50.860	415	52.65	108	15.965	378	52.73	91
Mai 1	56.396	304	45.36	146	42.10	93	31.96	7	51.275	403	53.73	165	16.343	377	51.82	78
11	56.700	296	46.82	168	43.03	89	32.03	49	51.678	381	55.38	215	16.720	368	51.04	61
21	56.996	281	48.50	184	43.92	84	32.52	90	52.059	350	57.53	258	17.088	353	50.43	43
31	57.277	261	50.34	193	44.76	77	33.42	130	52.409	309	60.11	294	17.441	330	50.00	23
Juni 10	57.538	233	52.27	198	45.53	68	34.72	166	52.718	260	63.05	320	17.771	299	49.77	3
20	57.771	201	54.25	196	46.21	57	36.38	197	52.978	205	66.25	339	18.070	262	49.74	19
30	57.972	164	56.21	190	46.78	46	38.35	223	53.183	144	69.64	347	18.332	217	49.93	39
Juli 10	58.136	123	58.11	180	47.24	32	40.58	242	53.327	81	73.11	347	18.549	168	50.32	56
20	$_{21}$58.259	79	59.91	165	$_{21}$47.56	19	43.00	254	$_{21}$53.408	16	76.58	340	$_{22}$18.717	115	50.88	73
29	58.338	34	61.56	148	47.75	4	45.54	258	53.424	49	79.98	325	18.832	61	51.61	85
Aug. 8	58.372	9	63.04	128	47.79	9	48.12	253	53.375	110	83.23	302	18.893	7	52.46	94
18	58.363	49	64.32	107	47.70	23	50.65	238	53.265	168	86.25	274	18.900	45	53.40	98
28	58.314	87	65.39	84	47.47	35	53.03	215	53.097	220	88.99	240	18.855	91	54.38	96
Sept. 7	58.227	117	66.23	62	47.12	46	55.18	183	52.877	263	91.39	200	18.764	131	55.34	89
17	58.110	140	66.85	39	46.66	55	57.01	143	52.614	297	93.39	157	18.633	162	56.23	79
27	57.970	155	67.24	16	46.11	60	58.44	97	52.317	321	94.96	109	18.471	183	57.02	64
Okt. 7	57.815	160	67.40	7	45.51	63	59.41	46	51.996	332	96.05	59	18.288	190	57.66	46
17	57.655	157	67.33	29	44.88	64	59.87	8	51.664	332	96.64	7	18.098	188	58.12	25
27	57.498	145	67.04	51	44.24	60	59.79	62	51.332	321	96.71	46	17.910	173	58.37	3
Nov. 6	57.353	124	66.53	72	43.64	55	59.17	115	51.011	298	96.25	99	17.737	148	58.40	19
16	57.229	97	65.81	92	43.09	46	58.02	164	50.713	265	95.26	151	17.589	114	58.21	39
26	57.132	64	64.89	110	42.63	35	56.38	208	50.448	223	93.75	198	17.475	74	57.82	58
Dez. 6	57.068	29	63.79	126	42.28	23	54.30	244	50.225	174	91.77	242	17.401	28	57.24	75
16	57.039	7	62.53	138	42.05	10	51.86	273	50.051	118	89.35	278	17.373	19	56.49	88
26	57.046	46	61.15	145	41.95	4	49.13	293	49.933	58	86.57	305	17.392	66	55.61	100
36	57.092		59.70		41.99		46.20		49.875		83.52		17.458		54.61	
Mittl. Ort	55.427		59.56		38.48		42.43		50.780		78.24		14.869		52.05	
sec δ, tg δ	1.006		+0.109		3.439		−3.290		1.634		+1.292		1.228		−0.712	
a, a'	+2.9		+9.4		+6.9		+9.5		+1.6		+9.6		+3.9		+9.7	
b, b'	0.00		+0.88		−0.10		+0.88		+0.04		+0.88		−0.02		+0.88	

Tag	752) γ Sagittae AR.		Dekl.		754) δ Pavonis AR.		Dekl.		756) ϑ Aquilae AR.		Dekl.		759) ϰ Cephei AR.		Dekl.	
1931	19h 55m		+19° 17′		20h 1m		−66° 21′		20h 7m		−1° 1′		20h 11m		+77° 29′	
Jan. 1	39.558	50	65.87	213	55.32	10	52.32	267	43.146	60	48.05	104	7.83	39	75.65	313
11	39.608	89	63.74	215	55.42	20	49.65	276	43.206	95	49.09	101	7.44	20	72.52	332
21	39.697	125	61.59	208	55.62	28	46.89	276	43.301	128	50.10	93	7.24	1	69.20	339
31	39.822	159	59.51	193	55.90	37	44.13	271	43.429	159	51.03	81	7.23	19	65.81	334
Feb. 10	39.981	191	57.58	169	56.27	45	41.42	259	43.588	187	51.84	63	7.42	37	62.47	314
20	40.172	220	55.89	136	56.72	51	38.83	242	43.775	214	52.47	41	7.79	55	59.33	283
März 2	40.392	245	54.53	99	57.23	57	36.41	220	43.989	237	52.88	16	8.34	70	56.50	240
12	40.637	268	53.54	57	57.80	62	34.21	193	44.226	259	53.04	12	9.04	82	54.10	190
22	40.905	286	52.97	11	58.42	66	32.28	163	44.485	277	52.92	42	9.86	92	52.20	131
Apr. 1	41.191	300	52.86	35	59.08	69	30.65	131	44.762	292	52.50	70	10.78	98	50.89	68
11	41.491	309	53.21	80	59.77	70	29.34	95	45.054	303	51.80	97	11.76	102	50.21	4
21	41.800	312	54.01	122	60.47	71	28.39	58	45.357	309	50.83	121	12.78	101	50.17	60
Mai 1	42.112	309	55.23	160	61.18	70	27.81	18	45.666	310	49.62	141	13.79	97	50.77	120
11	42.421	300	56.83	192	61.88	68	27.63	21	45.976	304	48.21	157	14.76	90	51.97	177
21	42.721	284	58.75	218	62.56	65	27.84	60	46.280	293	46.64	167	15.66	81	53.74	227
31	43.005	261	60.93	237	63.21	60	28.44	98	46.573	275	44.97	172	16.47	69	56.01	269
Juni 10	43.266	233	63.30	249	63.81	54	29.42	134	46.848	250	43.25	172	17.16	56	58.70	305
20	43.499	198	65.79	254	64.35	47	30.76	165	47.098	219	41.53	168	17.72	40	61.75	332
30	43.697	159	68.33	253	64.82	38	32.41	193	47.317	183	39.85	159	18.12	23	65.07	349
Juli 10	43.856	116	70.86	245	65.20	28	34.34	215	47.500	143	38.26	147	18.35	6	68.56	358
20	[22] 43.972	71	73.31	233	[23] 65.48	19	36.49	229	[25] 47.643	99	36.79	131	[26] 18.41	10	72.14	360
29	44.043	25	75.64	215	65.67	8	38.78	237	47.742	55	35.48	114	18.31	27	75.74	352
Aug. 8	44.068	20	77.79	193	65.75	3	41.15	236	47.797	10	34.34	96	18.04	43	79.26	338
18	44.048	62	79.72	169	65.72	12	43.51	227	47.807	31	33.38	77	17.61	59	82.64	316
28	43.986	99	81.41	141	65.60	22	45.78	209	47.776	70	32.61	58	17.02	72	85.80	287
Sept. 7	43.887	131	82.82	111	65.38	30	47.87	182	47.706	102	32.03	39	16.30	83	88.67	252
17	43.756	156	83.93	80	65.08	36	49.69	148	47.604	127	31.64	21	15.47	94	91.19	213
27	43.600	171	84.73	47	64.72	41	51.17	107	47.477	145	31.43	4	14.53	101	93.32	167
Okt. 7	43.429	177	85.20	14	64.31	43	52.24	62	47.332	152	31.39	12	13.52	107	94.99	117
17	43.252	175	85.34	20	63.88	44	52.86	14	47.180	151	31.51	27	12.45	109	96.16	65
27	43.077	164	85.14	53	63.44	42	53.00	36	47.029	142	31.78	42	11.36	109	96.81	9
Nov. 6	42.913	144	84.61	86	63.02	37	52.64	86	46.887	123	32.20	55	10.27	106	96.90	48
16	42.769	118	83.75	117	62.65	32	51.78	132	46.764	98	32.75	68	9.21	100	96.42	105
26	42.651	86	82.58	146	62.33	24	50.46	174	46.666	68	33.43	80	8.21	91	95.37	160
Dez. 6	42.565	50	81.12	172	62.09	15	48.72	210	46.598	34	34.23	89	7.30	79	93.77	211
16	42.515	12	79.40	191	61.94	6	46.62	239	46.564	1	35.12	96	6.51	65	91.66	256
26	42.503	27	77.49	206	61.88	4	44.23	260	46.565	39	36.08	101	5.86	50	89.10	292
36	42.530		75.43		61.92		41.63		46.604		37.09		5.36		86.18	
Mittl. Ort	41.282		73.04		58.45		36.99		44.716		38.53		14.71		75.93	
sec δ, tg δ	1.060		+0.350		2.494		−2.285		1.000		−0.018		4.622		+4.512	
a, *a′*	+2.7		+9.7		+5.7		+10.2		+3.1		+10.6		−2.0		+10.9	
b, *b′*	+0.01		+0.88		−0.08		+ 0.86		0.00		+ 0.85		+0.16		+ 0.84	

Tag	757) o^1 Cygni sq. AR.		Dekl.		760) 24 Vulpeculae AR.		Dekl.		761) α^2 Capricorni AR.		Dekl.		765) γ Cygni AR.		Dekl.	
1931	$20^h\ 11^m$		$+46°\ 31'$		$20^h\ 13^m$		$+24°\ 27'$		$20^h\ 14^m$		$-12°\ 45'$		$20^h\ 19^m$		$+40°\ 1'$	
Jan. 1	25.212	23	49.46	298	48.156	25	21.21	227	12.123	62	46.73	33	42.995	13	62.64	277
11	25.189	30	46.48	309	48.181	65	18.94	233	12.185	98	47.06	27	42.982	34	59.87	288
21	25.219	85	43.39	309	48.246	102	16.61	228	12.283	131	47.33	19	43.016	81	56.99	288
31	25.304	138	40.30	297	48.348	139	14.33	215	12.414	163	47.52	9	43.097	127	54.11	277
Feb. 10	25.442	188	37.33	273	48.487	173	12.18	192	12.577	192	47.61	5	43.224	172	51.34	255
20	25.630	235	34.60	238	48.660	206	10.26	161	12.769	219	47.56	21	43.396	214	48.79	221
März 2	25.865	277	32.22	194	48.866	235	8.65	123	12.988	243	47.35	39	43.610	252	46.58	179
12	26.142	314	30.28	141	49.101	261	7.42	78	13.231	265	46.96	57	43.862	285	44.79	130
22	26.456	344	28.87	84	49.362	283	6.64	31	13.496	284	46.39	76	44.147	314	43.49	75
Apr. 1	26.800	366	28.03	23	49.645	301	6.33	18	13.780	300	45.63	93	44.461	335	42.74	18
11	27.166	380	27.80	37	49.946	313	6.51	67	14.080	312	44.70	109	44.796	350	42.56	40
21	27.546	384	28.17	97	50.259	320	7.18	114	14.392	320	43.61	122	45.146	357	42.96	97
Mai 1	27.930	379	29.14	152	50.579	319	8.32	155	14.712	322	42.39	130	45.503	356	43.93	149
11	28.309	365	30.66	202	50.898	312	9.87	193	15.034	318	41.09	135	45.859	346	45.42	196
21	28.674	342	32.68	246	51.210	298	11.80	224	15.352	308	39.74	135	46.205	327	47.38	237
31	29.016	309	35.14	281	51.508	276	14.04	247	15.660	291	38.39	131	46.532	300	49.75	271
Juni 10	29.325	269	37.95	308	51.784	248	16.51	264	15.951	266	37.08	123	46.832	266	52.46	297
20	29.594	222	41.03	327	52.032	214	19.15	273	16.217	235	35.85	112	47.098	225	55.43	314
30	29.816	169	44.30	338	52.246	174	21.88	275	16.452	200	34.73	98	47.323	179	58.57	324
Juli 10	29.985	113	47.68	340	52.420	130	24.63	271	16.652	159	33.75	83	47.502	129	61.81	325
20	30.098	55	51.08	334	52.550	84	27.34	261	16.811	115	32.92	66	47.631	75	65.06	319
29	[26] 30.153	4	54.42	321	[26] 52.634	37	29.95	245	[26] 16.926	69	32.26	48	[28] 47.706	21	68.25	306
Aug. 8	30.149	61	57.63	301	52.671	9	32.40	224	16.995	23	31.78	32	47.727	32	71.31	286
18	30.088	116	60.64	274	52.662	53	34.64	200	17.018	21	31.46	16	47.695	82	74.17	262
28	29.972	164	63.38	243	52.609	94	36.64	171	16.997	62	31.30	3	47.613	128	76.79	231
Sept. 7	29.808	206	65.81	206	52.515	127	38.35	140	16.935	96	31.27	9	47.485	168	79.10	196
17	29.602	240	67.87	165	52.388	155	39.75	107	16.839	123	31.36	18	47.317	199	81.06	157
27	29.362	264	69.52	121	52.233	174	40.82	72	16.716	142	31.54	26	47.118	222	82.63	115
Okt. 7	29.098	277	70.73	73	52.059	183	41.54	35	16.574	152	31.80	30	46.896	235	83.78	71
17	28.821	280	71.46	23	51.876	184	41.89	2	16.422	152	32.10	33	46.661	240	84.49	24
27	28.541	273	71.69	27	51.692	176	41.87	39	16.270	142	32.43	36	46.421	233	84.73	23
Nov. 6	28.268	256	71.42	79	51.516	160	41.48	77	16.128	124	32.79	37	46.188	218	84.50	72
16	28.012	229	70.63	129	51.356	136	40.71	113	16.004	99	33.16	37	45.970	194	83.78	118
26	27.783	194	69.34	176	51.220	107	39.58	145	15.905	69	33.53	38	45.776	163	82.60	162
Dez. 6	27.589	152	67.58	219	51.113	74	38.13	175	15.836	34	33.91	37	45.613	127	80.98	202
16	27.437	106	65.39	255	51.039	37	36.38	200	15.802	3	34.28	35	45.486	85	78.96	237
26	27.331	54	62.84	282	51.002	2	34.38	217	15.805	39	34.63	33	45.401	41	76.59	263
36	27.277		60.02		51.004		32.21		15.844		34.96		45.360		73.96	
Mittl. Ort	27.529		52.45		49.920		26.94		13.670		35.61		45.079		65.88	
sec δ, tg δ	1.454		+1.055		1.099		+0.455		1.025		−0.226		1.306		+0.840	
a, a'	+1.9		+10.9		+2.6		+11.1		+3.3		+11.1		+2.2		+11.5	
b, b'	+0.04		+ 0.84		+0.02		+ 0.83		−0.01		+ 0.83		+0.03		+ 0.82	

Tag	764) α Pavonis AR.	Δ	764) α Pavonis Dekl.	Δ	767) ϑ Cephei AR.	Δ	767) ϑ Cephei Dekl.	Δ	768) ε Delphini AR.	Δ	768) ε Delphini Dekl.	Δ	770) 73 Draconis AR.	Δ	770) 73 Draconis Dekl.	Δ
1931	20h 20m		−56° 57′		20h 28m		+62° 45′		20h 29m		+11° 3′		20h 32m		+74° 42′	
Jan. 1	9.780 s	61	43.84″	224	22.26 s	14	42.42″	307	53.408 s	28	56.17″	160	20.70 s	36	67.90″	299
11	9.841	129	41.60	237	22.12	6	39.35	326	53.436	62	54.57	162	20.34	21	64.91	324
21	9.970	193	39.23	243	22.06	2	36.09	334	53.498	97	52.95	156	20.13	6	61.67	336
31	10.163	254	36.80	245	22.08	11	32.75	329	53.595	129	51.39	144	20.07	10	58.31	336
Feb. 10	10.417	309	34.35	241	22.19	20	29.46	311	53.724	160	49.95	125	20.17	25	54.95	321
20	10.726	359	31.94	232	22.39	27	26.35	281	53.884	190	48.70	99	20.42	39	51.74	295
März 2	11.085	404	29.62	219	22.66	34	23.54	239	54.074	217	47.71	68	20.81	53	48.79	256
12	11.489	443	27.43	201	23.00	41	21.15	189	54.291	243	47.03	33	21.34	64	46.23	208
22	11.932	477	25.42	180	23.41	46	19.26	131	54.534	264	46.70	5	21.98	73	44.15	152
Apr. 1	12.409	502	23.62	156	23.87	50	17.95	69	54.798	284	46.75	45	22.71	80	42.63	92
11	12.911	521	22.06	129	24.37	52	17.26	5	55.082	298	47.20	82	23.51	84	41.71	27
21	13.432	533	20.77	98	24.89	53	17.21	59	55.380	308	48.02	118	24.35	85	41.44	37
Mai 1	13.965	534	19.79	66	25.42	52	17.80	120	55.688	311	49.20	150	25.20	84	41.81	98
11	14.499	526	19.13	31	25.94	50	19.00	176	55.999	309	50.70	176	26.04	80	42.79	157
21	15.025	508	18.82	4	26.44	47	20.76	228	56.308	299	52.46	198	26.84	73	44.36	210
31	15.533	478	18.86	39	26.91	42	23.04	271	56.607	282	54.44	213	27.57	64	46.46	257
Juni 10	16.011	437	19.25	74	27.33	36	25.75	307	56.889	259	56.57	223	28.21	54	49.03	295
20	16.448	386	19.99	106	27.69	29	28.82	334	57.148	229	58.80	226	28.75	42	51.98	325
30	16.834	325	21.05	136	27.98	22	32.16	353	57.377	194	61.06	222	29.17	29	55.23	348
Juli 10	17.159	257	22.41	160	28.20	13	35.69	362	57.571	154	63.28	215	29.46	15	58.71	361
20	17.416	183	24.01	179	28.33	5	39.31	364	57.725	111	65.43	203	29.61	2	62.32	366
29*)	[28] 17.599	104	25.80	194	[30] 28.38	3	42.95	357	[30] 57.836	67	67.46	186	[31] 29.63	12	65.98	363
Aug. 8	17.703	25	27.74	200	28.35	12	46.52	342	57.903	22	69.32	166	29.51	26	69.61	352
18	17.728	52	29.74	198	28.23	19	49.94	321	57.925	22	70.98	144	29.25	39	73.13	333
28	17.676	124	31.72	189	28.04	26	53.15	292	57.903	61	72.42	120	28.86	51	76.46	308
Sept. 7	17.552	188	33.61	171	27.78	33	56.07	258	57.842	95	73.62	96	28.35	61	79.54	277
17	17.364	240	35.32	147	27.45	38	58.65	217	57.747	123	74.58	70	27.74	70	82.31	239
27	17.124	278	36.79	116	27.07	42	60.82	173	57.624	143	75.28	43	27.04	78	84.70	194
Okt. 7	16.846	301	37.95	79	26.65	44	62.55	123	57.481	154	75.71	17	26.26	83	86.64	147
17	16.545	307	38.74	38	26.21	46	63.78	70	57.327	157	75.88	10	25.43	85	88.11	94
27	16.238	297	39.12	4	25.75	46	64.48	15	57.170	151	75.78	35	24.58	87	89.05	39
Nov. 6	15.941	271	39.08	47	25.29	45	64.63	42	57.019	137	75.43	60	23.71	85	89.44	18
16	15.670	230	38.61	89	24.84	42	64.21	98	56.882	117	74.83	85	22.86	82	89.26	77
26	15.440	179	37.72	129	24.42	37	63.23	153	56.765	91	73.98	107	22.04	75	88.49	134
Dez. 6	15.261	118	36.43	163	24.05	32	61.70	204	56.674	60	72.91	126	21.29	67	87.15	187
16	15.143	52	34.80	192	23.73	26	59.66	249	56.614	27	71.65	142	20.62	56	85.28	236
26	15.091	17	32.88	214	23.47	19	57.17	286	56.587	7	70.23	154	20.06	44	82.92	277
36	15.108		30.74		23.28		54.31		56.594		68.69		19.62		80.15	
Mittl. Ort	12.043		27.85		25.63		42.31		54.989		63.40		26.37		66.44	
sec δ, tg δ	1.834		−1.537		2.185		+1.943		1.019		+0.196		3.794		+3.660	
a, *a′*	+4.8		+11.5		+1.0		+12.1		+2.9		+12.2		−0.8		+12.4	
b, *b′*	−0.06		+ 0.82		+0.08		+ 0.80		+0.01		+ 0.79		+0.15		+ 0.79	

*) Bei Stern 767), 768) und 770) lies Juli 30

Tag	769) α Indi				771) β Delphini				773) υ Capricorni				774) α Delphini			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$20^h\ 32^m$		$-47°\ 31'$		$20^h\ 34^m$		$+14°\ 20'$		$20^h\ 36^m$		$-18°\ 22'$		$20^h\ 36^m$		$+15°\ 39'$	
Jan. 1	41.373	47	76.75	174	17.194	21	67.96	174	5.970	43	70.19	4	24.377	17	56.89	179
11	41.420	99	75.01	188	17.215	55	66.22	177	6.013	79	70.15	12	24.394	52	55.10	183
21	41.519	150	73.13	198	17.270	90	64.45	173	6.092	114	70.03	23	24.446	86	53.27	179
31	41.669	198	71.15	205	17.360	123	62.72	161	6.206	146	69.80	34	24.532	120	51.48	168
Feb. 10	41.867	242	69.10	206	17.483	155	61.11	142	6.352	176	69.46	47	24.652	153	49.80	148
20	42.109	283	67.04	205	17.638	185	59.69	115	6.528	205	68.99	60	24.805	183	48.32	122
März 2	42.392	321	64.99	200	17.823	214	58.54	84	6.733	232	68.39	75	24.988	213	47.10	89
12	42.713	353	62.99	191	18.037	241	57.70	46	6.965	257	67.64	90	25.201	239	46.21	51
22	43.066	383	61.08	179	18.278	264	57.24	5	7.222	280	66.74	103	25.440	264	45.70	11
Apr. 1	43.449	408	59.29	163	18.542	283	57.19	35	7.502	299	65.71	116	25.704	283	45.59	32
11	43.857	427	57.66	145	18.825	299	57.54	76	7.801	315	64.55	127	25.987	299	45.91	73
21	44.284	440	56.21	123	19.124	310	58.30	114	8.116	327	63.28	133	26.286	310	46.64	113
Mai 1	44.724	445	54.98	98	19.434	313	59.44	149	8.443	332	61.95	136	26.596	314	47.77	148
11	45.169	442	54.00	71	19.747	311	60.93	179	8.775	332	60.59	136	26.910	312	49.25	180
21	45.611	431	53.29	41	20.058	301	62.72	204	9.107	325	59.23	130	27.222	303	51.05	205
31	46.042	410	52.88	10	20.359	285	64.76	221	9.432	310	57.93	122	27.525	287	53.10	225
Juni 10	46.452	380	52.78	20	20.644	262	66.97	233	9.742	289	56.71	110	27.812	263	55.35	237
20	46.832	340	52.98	52	20.906	232	69.30	238	10.031	259	55.61	95	28.075	233	57.72	243
30	47.172	292	53.50	80	21.138	197	71.68	238	10.290	225	54.66	77	28.308	198	60.15	243
Juli 10	47.464	238	54.30	106	21.335	157	74.06	232	10.515	185	53.89	58	28.506	158	62.58	238
20	47.702	177	55.36	128	21.492	113	76.38	219	10.700	140	53.31	39	28.664	114	64.96	227
30	47.879	113	56.64	145	21.605	68	78.57	204	10.840	93	52.92	20	28.778	69	67.23	211
Aug. 8	31 47.992	47	58.09	157	31 21.673	23	80.61	185	1 10.933	46	52.72	2	1 28.847	24	69.34	192
18	48.039	16	59.66	162	21.696	21	82.46	162	10.979	1	52.70	13	28.871	20	71.26	170
28	48.023	76	61.28	159	21.675	60	84.08	138	10.978	44	52.83	25	28.851	60	72.96	144
Sept. 7	47.947	130	62.87	151	21.615	95	85.46	111	10.934	82	53.08	36	28.791	95	74.40	118
17	47.817	174	64.38	135	21.520	124	86.57	83	10.852	113	53.44	42	28.696	124	75.58	89
27	47.643	207	65.73	112	21.396	144	87.40	56	10.739	135	53.86	45	28.572	145	76.47	61
Okt. 7	47.436	228	66.85	85	21.252	156	87.96	26	10.604	149	54.31	45	28.427	158	77.08	31
17	47.208	234	67.70	54	21.096	160	88.22	3	10.455	153	54.76	44	28.269	161	77.39	0
27	46.974	228	68.24	19	20.936	155	88.19	31	10.302	147	55.20	39	28.108	157	77.39	29
Nov. 6	46.746	209	68.43	16	20.781	142	87.88	59	10.155	133	55.59	33	27.951	144	77.10	59
16	46.537	178	68.27	52	20.639	123	87.29	87	10.022	110	55.92	27	27.807	125	76.51	87
26	46.359	139	67.75	85	20.516	97	86.42	112	9.912	83	56.19	21	27.682	100	75.64	113
Dez. 6	46.220	92	66.90	115	20.419	67	85.30	134	9.829	50	56.40	13	27.582	71	74.51	137
16	46.128	41	65.75	142	20.352	35	83.96	153	9.779	16	56.53	6	27.511	38	73.14	156
26	46.087	12	64.33	164	20.317	0	82.43	166	9.763	21	56.59	2	27.473	4	71.58	171
36	46.099		62.69		20.317		80.77		9.784		56.57		27.469		69.87	
Mittl. Ort	43.210		60.90		18.795		74.48		7.455		58.07		25.986		63.11	
sec δ, tg δ	1.481		−1.093		1.032		+0.256		1.054		−0.332		1.039		+0.280	
a, a'	+4.2		+12.4		+2.8		+12.5		+3.4		+12.6		+2.8		+12.6	
b, b'	−0.05		+ 0.79		+0.01		+ 0.78		−0.01		+ 0.78		+0.01		+ 0.78	

Scheinbare Sternörter 1931

Tag	775) β Pavonis AR.		775) β Pavonis Dekl.		777) α Cygni AR.		777) α Cygni Dekl.		780) ε Cygni AR.		780) ε Cygni Dekl.		783) η Cephei AR.		783) η Cephei Dekl.	
1931	$20^h 38^m$		$-66° 26'$		$20^h 39^m$		$+45° 1'$		$20^h 43^m$		$+33° 42'$		$20^h 43^m$		$+61° 33'$	
Jan. 1	43.08	0	88.35	267	2.528	51	57.40	277	23.250	21	36.57	244	50.14	16	74.37	291
11	43.08	9	85.68	283	2.477	2	54.63	293	23.229	20	34.13	256	49.98	8	71.46	315
21	43.17	19	82.85	294	2.475	50	51.70	298	23.249	62	31.57	258	49.90	0	68.31	326
31	43.36	27	79.91	296	2.525	101	48.72	291	23.311	103	28.99	250	49.90	8	65.05	324
Feb. 10	43.63	35	76.95	292	2.626	150	45.81	273	23.414	143	26.49	231	49.98	16	61.81	310
20	43.98	43	74.03	281	2.776	199	43.08	243	23.557	182	24.18	203	50.14	24	58.71	284
März 2	44.41	49	71.22	265	2.975	244	40.65	204	23.739	220	22.15	166	50.38	31	55.87	245
12	44.90	55	68.57	243	3.219	284	38.61	156	23.959	253	20.49	121	50.69	37	53.42	197
22	45.45	60	66.14	217	3.503	319	37.05	102	24.212	283	19.28	71	51.06	43	51.45	142
Apr. 1	46.05	64	63.97	187	3.822	346	36.03	44	24.495	307	18.57	19	51.49	47	50.03	81
11	46.69	67	62.10	153	4.168	367	35.59	15	24.802	327	18.38	36	51.96	50	49.22	18
21	47.36	70	60.57	115	4.535	378	35.74	74	25.129	338	18.74	88	52.46	51	49.04	45
Mai 1	48.06	70	59.42	76	4.913	380	36.48	130	25.467	342	19.62	137	52.97	52	49.49	106
11	48.76	69	58.66	35	5.293	373	37.78	181	25.809	339	20.99	183	53.49	50	50.55	165
21	49.45	67	58.31	7	5.666	356	39.59	226	26.148	328	22.82	222	53.99	47	52.20	216
31	50.12	64	58.38	50	6.022	330	41.85	265	26.476	307	25.04	254	54.46	43	54.36	262
Juni 10	50.76	58	58.88	90	6.352	295	44.50	295	26.783	280	27.58	279	54.89	37	56.98	300
20	51.34	52	59.78	128	6.647	253	47.45	318	27.063	245	30.37	297	55.26	31	59.98	330
30	51.86	44	61.06	163	6.900	205	50.63	332	27.308	204	33.34	307	55.57	25	63.28	351
Juli 10	52.30	36	62.69	191	7.105	151	53.95	338	27.512	159	36.41	309	55.82	17	66.79	363
20	52.66	26	64.60	215	7.256	96	57.33	337	27.671	110	39.50	305	55.99	8	70.42	367
30	52.92	16	66.75	231	7.352	38	60.70	328	27.781	60	42.55	293	56.07	1	74.09	364
Aug. 8	53.08	5	69.06	239	7.390	19	63.98	311	27.841	10	45.48	276	56.08	8	77.73	352
18	53.13	6	71.45	237	7.371	74	67.09	289	27.851	39	48.24	253	56.00	15	81.25	332
28	53.07	16	73.82	228	7.297	124	69.98	261	27.812	83	50.77	226	55.85	22	84.57	306
Sept. 7	52.91	24	76.10	208	7.173	168	72.59	228	27.729	123	53.03	195	55.63	28	87.63	274
17	52.67	32	78.18	181	7.005	205	74.87	190	27.606	155	54.98	159	55.35	34	90.37	236
27	52.35	38	79.99	145	6.800	233	76.77	147	27.451	180	56.57	122	55.01	38	92.73	193
Okt. 7	51.97	42	81.44	102	6.567	251	78.24	103	27.271	196	57.79	81	54.63	41	94.66	144
17	51.55	44	82.46	56	6.316	260	79.27	54	27.075	203	58.60	39	54.22	43	96.10	93
27	51.11	44	83.02	5	6.056	259	79.81	5	26.872	201	58.99	5	53.79	43	97.03	38
Nov. 6	50.67	41	83.07	47	5.797	247	79.86	46	26.671	191	58.94	49	53.36	42	97.41	19
16	50.26	37	82.60	97	5.550	227	79.40	96	26.480	172	58.45	92	52.94	40	97.22	75
26	49.89	31	81.63	144	5.323	201	78.44	144	26.308	147	57.53	132	52.54	37	96.47	130
Dez. 6	49.58	23	80.19	188	5.122	165	77.00	189	26.161	117	56.21	171	52.17	32	95.17	183
16	49.35	15	78.31	224	4.957	124	75.11	228	26.044	83	54.50	203	51.85	26	93.34	230
26	49.20	6	76.07	253	4.833	79	72.83	259	25.961	44	52.47	229	51.59	20	91.04	269
36	49.14		73.54		4.754		70.24		25.917		50.18		51.39		88.35	
Mittl. Ort	45.78		70.79		4.745		58.64		25.128		39.31		53.35		73.10	
sec δ, tg δ	2.503		−2.295		1.415		+1.001		1.202		+0.667		2.100		+1.847	
a, *a'*	+5.4		+12.8		+2.0		+12.8		+2.4		+13.1		+1.2		+13.1	
b, *b'*	−0.10		+ 0.77		+0.04		+ 0.77		+0.03		+ 0.76		+0.08		+ 0.76	

Tag	781) ε Aquarii				784) λ Cygni				785) β Indi				786) 32 Vulpeculae			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1931	20h 43m		−9° 44′		20h 44m		+36° 13′		20h 49m		−58° 42′		20h 51m		+27° 47′	
Jan. 1	55s.082	32	68″.59	45	41s.262	29	68″.78	251	23s.669	3	74″.94	228	35s.376	16	36″.18	220
11	55.114	66	69.04	39	41.233	12	66.27	265	23.672	73	72.66	247	35.360	21	33.98	231
21	55.180	99	69.43	29	41.245	56	63.62	268	23.745	140	70.19	261	35.381	58	31.67	232
31	55.279	130	69.72	17	41.301	99	60.94	261	23.885	204	67.58	267	35.439	97	29.35	224
Feb. 10	55.409	160	69.89	2	41.400	141	58.33	242	24.089	265	64.91	268	35.536	134	27.11	207
20	55.569	188	69.91	15	41.541	183	55.91	214	24.354	322	62.23	263	35.670	170	25.04	180
März 2	55.757	215	69.76	36	41.724	220	53.77	176	24.676	374	59.60	253	35.840	205	23.24	145
12	55.972	241	69.40	57	41.944	256	52.01	131	25.050	420	57.07	239	36.045	237	21.79	103
22	56.213	264	68.83	78	42.200	287	50.70	81	25.470	462	54.68	219	36.282	266	20.76	57
Apr. 1	56.477	284	68.05	99	42.487	313	49.89	27	25.932	496	52.49	196	36.548	291	20.19	7
11	56.761	301	67.06	118	42.800	332	49.62	28	26.428	524	50.53	168	36.839	310	20.12	42
21	57.062	314	65.88	134	43.132	345	49.90	82	26.952	544	48.85	137	37.149	324	20.54	91
Mai 1	57.376	320	64.54	146	43.477	348	50.72	134	27.496	553	47.48	103	37.473	330	21.45	137
11	57.696	320	63.08	153	43.825	345	52.06	181	28.049	553	46.45	67	37.803	329	22.82	178
21	58.016	315	61.55	156	44.170	333	53.87	221	28.602	542	45.78	29	38.132	320	24.60	214
31	58.331	301	59.99	155	44.503	312	56.08	256	29.144	518	45.49	11	38.452	303	26.74	243
Juni 10	58.632	281	58.44	150	44.815	283	58.64	282	29.662	482	45.60	49	38.755	279	29.17	265
20	58.913	254	56.94	139	45.098	248	61.46	301	30.144	436	46.09	86	39.034	248	31.82	280
30	59.167	221	55.55	125	45.346	206	64.47	312	30.580	378	46.95	121	39.282	210	34.62	288
Juli 10	59.388	182	54.30	110	45.552	159	67.59	316	30.958	311	48.16	151	39.492	168	37.50	289
20	59.570	140	53.20	92	45.711	109	70.75	312	31.269	235	49.67	177	39.660	122	40.39	283
30	59.710	95	52.28	73	45.820	58	73.87	302	31.504	155	51.44	196	39.782	75	43.22	271
Aug. 8	[3] 59.805	49	51.55	54	[3] 45.878	7	76.89	285	[4] 31.659	73	53.40	208	[5] 39.857	26	45.93	254
18	59.854	4	51.01	36	45.885	43	79.74	263	31.732	10	55.48	213	39.883	20	48.47	232
28	59.858	37	50.65	19	45.842	89	82.37	235	31.722	89	57.61	208	39.863	63	50.79	206
Sept. 7	59.821	74	50.46	3	45.753	130	84.72	204	31.633	160	59.69	196	39.800	102	52.85	176
17	59.747	104	50.43	9	45.623	163	86.76	168	31.473	222	61.65	175	39.698	134	54.61	143
27	59.643	127	50.52	20	45.460	188	88.44	129	31.251	270	63.40	146	39.564	159	56.04	109
Okt. 7	59.516	140	50.72	29	45.272	205	89.73	88	30.981	304	64.86	112	39.405	174	57.13	72
17	59.376	146	51.01	36	45.067	213	90.61	43	30.677	320	65.98	70	39.231	182	57.85	33
27	59.230	141	51.37	40	44.854	212	91.04	1	30.357	319	66.68	26	39.049	181	58.18	6
Nov. 6	59.089	129	51.77	44	44.642	201	91.03	46	30.038	303	66.94	20	38.868	171	58.12	46
16	58.960	109	52.21	47	44.441	183	90.57	91	29.735	271	66.74	65	38.697	155	57.66	84
26	58.851	84	52.68	48	44.258	159	89.66	134	29.464	226	66.09	109	38.542	132	56.82	121
Dez. 6	58.767	54	53.16	48	44.099	128	88.32	174	29.238	171	65.00	149	38.410	105	55.61	154
16	58.713	22	53.64	48	43.971	92	86.58	208	29.067	108	63.51	185	38.305	73	54.07	184
26	58.691	11	54.12	45	43.879	53	84.50	237	28.959	40	61.66	215	38.232	38	52.23	207
36	58.702		54.57		43.826		82.13		28.919		59.51		38.194		50.16	
Mittl. Ort	56.531		57.91		43.197		71.02		25.753		57.35		37.115		39.51	
sec δ, tg δ	1.015		−0.172		1.240		+0.733		1.926		−1.646		1.130		+0.527	
a, *a′*	+3.2		+13.1		+2.3		+13.2		+4.7		+13.5		+2.6		+13.6	
b, *b′*	−0.01		+ 0.75		+0.03		+ 0.75		−0.07		+ 0.74		+0.02		+ 0.73	

Scheinbare Sternörter 1931

Tag	788) ν Cygni				790) ζ Microscopii				793) 61 Cygni pr.[1]				794) ν Aquarii			
	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ	AR.	Δ	Dekl.	Δ
1931	$20^h\ 54^m$		+40° 53′		$20^h\ 58^m$		−38° 53′		$21^h\ 3^m$		+38° 24′		$21^h\ 5^m$		−11° 38′	
Jan. 1	33.949 s	53	61.49″	256	32.191 s	17	83.80″	122	46.172 s	41	32.36″	236	48.899 s	14	78.40″	31
11	33.896	10	58.93	274	32.208	61	82.58	140	46.131	1	30.00	253	48.913	45	78.71	22
21	33.886	37	56.19	280	32.269	103	81.18	154	46.132	44	27.47	260	48.958	77	78.93	12
31	33.923	84	53.39	276	32.372	144	79.64	166	46.176	88	24.87	255	49.035	109	79.05	0
Feb. 10	34.007	130	50.63	260	32.516	182	77.98	175	46.264	132	22.32	240	49.144	140	79.05	16
20	34.137	175	48.03	233	32.698	219	76.23	181	46.396	176	19.92	214	49.284	169	78.89	34
März 2	34.312	218	45.70	197	32.917	254	74.42	184	46.572	217	17.78	179	49.453	198	78.55	53
12	34.530	258	43.73	152	33.171	286	72.58	185	46.789	256	15.99	136	49.651	225	78.02	73
22	34.788	293	42.21	101	33.457	316	70.73	183	47.045	291	14.63	86	49.876	251	77.29	94
Apr. 1	35.081	322	41.20	46	33.773	342	68.90	177	47.336	321	13.77	33	50.127	275	76.35	112
11	35.403	345	40.74	10	34.115	365	67.13	167	47.657	343	13.44	23	50.402	295	75.23	130
21	35.748	359	40.84	67	34.480	381	65.46	154	48.000	359	13.67	77	50.697	311	73.93	144
Mai 1	36.107	365	41.51	122	34.861	392	63.92	138	48.359	367	14.44	131	51.008	321	72.49	154
11	36.472	363	42.73	171	35.253	396	62.54	117	48.726	366	15.75	179	51.329	325	70.95	160
21	36.835	351	44.44	216	35.649	391	61.37	93	49.092	356	17.54	222	51.654	323	69.35	163
31	37.186	330	46.60	253	36.040	378	60.44	67	49.448	337	19.76	259	51.977	313	67.72	159
Juni 10	37.516	300	49.13	284	36.418	355	59.77	40	49.785	310	22.35	289	52.290	295	66.13	151
20	37.816	263	51.97	307	36.773	325	59.37	10	50.095	275	25.24	311	52.585	271	64.62	140
30	38.079	220	55.04	322	37.098	287	59.27	19	50.370	234	28.35	325	52.856	240	63.22	125
Juli 10	38.299	171	58.26	328	37.385	241	59.46	46	50.604	187	31.60	331	53.096	203	61.97	107
20	38.470	119	61.54	328	37.626	189	59.92	72	50.791	137	34.91	330	53.299	162	60.90	88
30	38.589	65	64.82	320	37.815	135	60.64	94	50.928	85	38.21	322	53.461	117	60.02	67
Aug. 8	38.654	10	68.02	305	37.950	77	61.58	111	51.013	32	41.43	308	53.578	71	59.35	47
18	38.664	41	71.07	285	38.027	21	62.69	124	51.045	19	44.51	287	53.649	25	58.88	28
28	38.623	91	73.92	258	38.048	34	63.93	131	51.026	66	47.38	261	53.674	18	58.60	10
Sept. 7	38.532	134	76.50	227	38.014	83	65.24	132	50.960	110	49.99	231	53.656	56	58.50	6
17	38.398	170	78.77	191	37.931	125	66.56	124	50.850	145	52.30	196	53.600	89	58.56	18
27	38.228	199	80.68	151	37.806	157	67.80	113	50.705	173	54.26	157	53.511	114	58.74	29
Okt. 7	38.029	219	82.19	109	37.649	179	68.93	96	50.532	194	55.83	116	53.397	132	59.03	37
17	37.810	230	83.28	64	37.470	190	69.89	73	50.338	205	56.99	72	53.265	140	59.40	42
27	37.580	230	83.92	16	37.280	190	70.62	48	50.133	206	57.71	26	53.125	139	59.82	45
Nov. 6	37.350	223	84.08	32	37.090	178	71.10	21	49.927	199	57.97	20	52.986	131	60.27	46
16	37.127	207	83.76	80	36.912	157	71.31	9	49.728	184	57.77	66	52.855	115	60.73	45
26	36.920	183	82.96	126	36.755	127	71.22	37	49.544	163	57.11	110	52.740	93	61.18	44
Dez. 6	36.737	153	81.70	169	36.628	92	70.85	64	49.381	135	56.01	152	52.647	67	61.62	42
16	36.584	118	80.01	208	36.536	52	70.21	89	49.246	102	54.49	189	52.580	38	62.04	38
26	36.466	78	77.93	238	36.484	10	69.32	112	49.144	64	52.60	219	52.542	6	62.42	32
36	36.388		75.55		36.474		68.20		49.080		50.41		52.536		62.74	
Mittl. Ort	35.990		62.33		33.708		68.09		48.128		33.27		50.263		67.45	
sec δ, tg δ	1.323		+0.866		1.285		−0.807		1.276		+0.793		1.021		−0.206	
a, *a′*	+2.2		+13.8		+3.8		+14.1		+2.3		+14.4		+3.3		+14.5	
b, *b′*	+0.04		+ 0.72		−0.04		+ 0.71		+0.04		+ 0.70		−0.01		+ 0.69	

[1]) Die jährliche Parallaxe (0.″30) ist bereits berücksichtigt.

Tag	795) Br 2777 AR.	Δ	795) Br 2777 Dekl.	Δ	797) ζ Cygni AR.	Δ	797) ζ Cygni Dekl.	Δ	800) α Equulei AR.	Δ	800) α Equulei Dekl.	Δ	803) α Cephei AR.	Δ	803) α Cephei Dekl.	Δ
1931	21h 6m		+77° 50′		21h 9m		+29° 56′		21h 12m		+4° 57′		21h 16m		+62° 17′	
Jan. 1	47.93	61	53.93	265	58.182	38	32.97	216	21.103	2	34.46	115	52.86	21	38.00	264
11	47.32	43	51.28	298	58.144	1	30.81	230	21.101	28	33.31	115	52.65	15	35.36	295
21	46.89	25	48.30	322	58.143	36	28.51	235	21.129	60	32.16	110	52.50	7	32.41	314
31	46.64	6	45.08	330	58.179	75	26.16	230	21.189	91	31.06	100	52.43	1	29.27	322
Feb. 10	46.58	14	41.78	326	58.254	113	23.86	215	21.280	121	30.06	83	52.44	10	26.05	315
20	46.72	33	38.52	310	58.367	152	21.71	191	21.401	152	29.23	61	52.54	18	22.90	297
März 2	47.05	51	35.42	281	58.519	189	19.80	158	21.553	183	28.62	36	52.72	26	19.93	267
12	47.56	68	32.61	242	58.708	224	18.22	118	21.736	211	28.26	5	52.98	33	17.26	225
22	48.24	81	30.19	191	58.932	256	17.04	73	21.947	238	28.21	27	53.31	40	15.01	176
Apr. 1	49.05	92	28.28	136	59.188	285	16.31	24	22.185	262	28.48	60	53.71	45	13.25	119
11	49.97	100	26.92	75	59.473	308	16.07	26	22.447	284	29.08	91	54.16	49	12.06	58
21	50.97	104	26.17	12	59.781	325	16.33	77	22.731	300	29.99	122	54.65	51	11.48	4
Mai 1	52.01	105	26.05	50	60.106	335	17.10	124	23.031	311	31.21	149	55.16	53	11.52	66
11	53.06	102	26.55	112	60.441	337	18.34	168	23.342	316	32.70	172	55.69	53	12.18	126
21	54.08	96	27.67	168	60.778	330	20.02	206	23.658	313	34.42	189	56.22	51	13.44	181
31	55.04	87	29.35	219	61.108	317	22.08	238	23.971	303	36.31	201	56.73	48	15.25	230
Juni 10	55.91	77	31.54	264	61.425	294	24.46	263	24.274	287	38.32	207	57.21	43	17.55	274
20	56.68	63	34.18	301	61.719	265	27.09	282	24.561	262	40.39	208	57.64	37	20.29	308
30	57.31	49	37.19	331	61.984	229	29.91	292	24.823	231	42.47	203	58.01	31	23.37	337
Juli 10	57.80	32	40.50	353	62.213	187	32.83	296	25.054	195	44.50	194	58.32	23	26.74	355
20	58.12	15	44.03	366	62.400	142	35.79	294	25.249	155	46.44	181	58.55	16	30.29	366
30	58.27	2	47.69	371	62.542	93	38.73	284	25.404	112	48.25	164	58.71	8	33.95	369
Aug. 9	58.25	18	51.40	368	62.635	44	41.57	269	25.516	67	49.89	145	58.79	1	37.64	364
18	[9] 58.07	34	55.08	358	[10] 62.679	3	44.26	248	[10] 25.583	23	51.34	124	[11] 58.78	8	41.28	351
28	57.73	50	58.66	340	62.676	48	46.74	225	25.606	18	52.58	101	58.70	16	44.79	330
Sept. 7	57.23	65	62.06	315	62.628	88	48.99	195	25.588	55	53.59	79	58.54	23	48.09	304
17	56.58	77	65.21	284	62.540	122	50.94	164	25.533	88	54.38	57	58.31	29	51.13	271
27	55.81	88	68.05	245	62.418	150	52.58	128	25.445	112	54.95	35	58.02	34	53.84	231
Okt. 7	54.93	96	70.50	201	62.268	169	53.86	91	25.333	130	55.30	13	57.68	38	56.15	187
17	53.97	103	72.51	152	62.099	179	54.77	53	25.203	138	55.43	7	57.30	41	58.02	137
27	52.94	107	74.03	99	61.920	182	55.30	13	25.065	140	55.36	27	56.89	42	59.39	85
Nov. 6	51.87	108	75.02	42	61.738	177	55.43	28	24.925	132	55.09	45	56.47	43	60.24	28
16	50.79	106	75.44	18	61.561	163	55.15	69	24.793	119	54.64	63	56.04	42	60.52	29
26	49.73	101	75.26	77	61.398	144	54.46	107	24.674	100	54.01	78	55.62	39	60.23	86
Dez. 6	48.72	93	74.49	135	61.254	120	53.39	143	24.574	76	53.23	92	55.23	35	59.37	142
16	47.79	83	73.14	189	61.134	91	51.96	175	24.498	50	52.31	103	54.88	31	57.95	193
26	46.96	69	71.25	237	61.043	58	50.21	201	24.448	20	51.28	110	54.57	26	56.02	238
36	46.27		68.88		60.985		48.20		24.428		50.18		54.31		53.64	
Mittl. Ort	54.77		49.16		59.909		34.90		22.512		41.72		56.03		33.93	
sec δ, tg δ	4.750		+4.644		1.154		+0.576		1.004		+0.087		2.151		+1.904	
a, *a′*	−1.2		+14.6		+2.6		+14.8		+3.0		+14.9		+1.4		+15.2	
b, *b′*	+0.23		+ 0.69		+0.03		+ 0.68		0.00		+ 0.67		+0.10		+ 0.65	

Scheinbare Sternörter 1931

Tag	804) ι Pegasi				805) γ Pavonis				806) ζ Capricorni				809) β Cephei			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$21^h\ 18^m$		$+19°\ 30'$		$21^h\ 20^m$		$-65°\ 40'$		$21^h\ 22^m$		$-22°\ 42'$		$21^h\ 27^m$		$+70°\ 15'$	
Jan. 1	52.158	26	26.36	174	43.53	10	67.16	251	42.583	1	53.75	31	42.42	37	33.14	251
11	52.132	7	24.62	183	43.43	1	64.65	277	42.582	32	53.44	45	42.05	28	30.63	287
21	52.139	40	22.79	185	43.42	8	61.88	297	42.614	65	52.99	60	41.77	17	27.76	313
31	52.179	74	20.94	177	43.50	15	58.91	309	42.679	98	52.39	74	41.60	5	24.63	325
Feb. 10	52.253	108	19.17	163	43.65	24	55.82	314	42.777	131	51.65	89	41.55	7	21.38	324
20	52.361	143	17.54	140	43.89	31	52.68	312	42.908	163	50.76	104	41.62	18	18.14	311
März 2	52.504	176	16.14	110	44.20	39	49.56	304	43.071	194	49.72	119	41.80	30	15.03	285
12	52.680	208	15.04	75	44.59	45	46.52	289	43.265	224	48.53	133	42.10	40	12.18	248
22	52.888	238	14.29	34	45.04	51	43.63	269	43.489	253	47.20	144	42.50	50	9.70	200
Apr. 1	53.126	266	13.95	8	45.55	56	40.94	243	43.742	279	45.76	155	43.00	57	7.70	147
11	53.392	288	14.03	51	46.11	61	38.51	213	44.021	303	44.21	162	43.57	63	6.23	87
21	53.680	307	14.54	94	46.72	64	36.38	179	44.324	322	42.59	165	44.20	68	5.36	24
Mai 1	53.987	318	15.48	134	47.36	66	34.59	140	44.646	336	40.94	164	44.88	69	5.12	38
11	54.305	323	16.82	170	48.02	67	33.19	99	44.982	343	39.30	160	45.57	69	5.50	99
21	54.628	320	18.52	199	48.69	66	32.20	55	45.325	344	37.70	151	46.26	66	6.49	157
31	54.948	310	20.51	225	49.35	65	31.65	10	45.669	336	36.19	138	46.92	63	8.06	210
Juni 10	55.258	292	22.76	243	50.00	61	31.55	35	46.005	321	34.81	121	47.55	56	10.16	256
20	55.550	265	25.19	255	50.61	57	31.90	78	46.326	298	33.60	101	48.11	49	12.72	296
30	55.815	233	27.74	260	51.18	50	32.68	118	46.624	268	32.59	78	48.60	41	15.68	328
Juli 10	56.048	197	30.34	258	51.68	42	33.86	156	46.892	231	31.81	55	49.01	30	18.96	351
20	56.245	154	32.92	252	52.10	34	35.42	188	47.123	188	31.26	31	49.31	20	22.47	367
30	56.399	109	35.44	240	52.44	24	37.30	214	47.311	141	30.95	7	49.51	9	26.14	374
Aug. 9	[12]56.508	64	37.84	224	[12]52.68	14	39.44	231	[13]47.452	94	30.88	15	[14]49.60	1	29.88	374
18	56.572	19	40.08	203	52.82	4	41.75	240	47.546	46	31.03	34	49.59	12	33.62	366
28	56.591	24	42.11	180	52.86	6	44.15	241	47.592	2	31.37	51	49.47	22	37.28	349
Sept. 7	56.567	63	43.91	154	52.80	16	46.56	231	47.590	44	31.88	63	49.25	32	40.77	326
17	56.504	96	45.45	124	52.64	25	48.87	211	47.546	81	32.51	70	48.93	40	44.03	296
27	56.408	122	46.69	95	52.39	31	50.98	183	47.465	111	33.21	73	48.53	47	46.99	259
Okt. 7	56.286	141	47.64	64	52.08	37	52.81	147	47.354	133	33.94	73	48.06	53	49.58	217
17	56.145	152	48.28	33	51.71	40	54.28	104	47.221	144	34.67	67	47.53	57	51.75	168
27	55.993	154	48.61	0	51.31	42	55.32	55	47.077	147	35.34	59	46.96	61	53.43	116
Nov. 6	55.839	150	48.61	32	50.89	42	55.87	4	46.930	142	35.93	48	46.35	62	54.59	60
16	55.689	138	48.29	64	50.47	39	55.91	48	46.788	128	36.41	35	45.73	61	55.19	0
26	55.551	121	47.65	93	50.08	35	55.43	101	46.660	107	36.76	21	45.12	59	55.19	59
Dez. 6	55.430	98	46.72	120	49.73	29	54.42	149	46.553	82	36.97	6	44.53	55	54.60	117
16	55.332	72	45.52	144	49.44	23	52.93	193	46.471	53	37.03	8	43.98	50	53.43	173
26	55.260	44	44.08	163	49.21	14	51.00	232	46.418	21	36.95	23	43.48	42	51.70	222
36	55.216		42.45		49.07		48.68		46.397		36.72		43.06		49.48	
Mittl. Ort	53.688		30.10		45.62		47.66		43.869		40.51		46.65		27.24	
sec δ, tg δ	1.061		+0.354		2.428		−2.213		1.084		−0.419		2.960		+2.786	
a, *a'*	+2.8		+15.3		+5.0		+15.4		+3.4		+15.5		+0.8		+15.8	
b, *b'*	+0.02		+0.65		−0.11		+0.64		−0.02		+0.63		+0.15		+0.62	

Tag	808) β Aquarii				810) ν Octantis				811) 74 Cygni				815) ε Pegasi			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$21^h 27^m$		−5° 52′		$21^h 33^m$		−77° 41′		$21^h 34^m$		+40° 5′		$21^h 40^m$		+9° 33′	
Jan. 1	54.380	8	41.68	57	48.99	34	74.23	286	9.003	89	71.78	225	46.473	29	22.76	125
11	54.372	22	42.25	52	48.65	17	71.37	316	8.914	50	69.53	247	46.444	1	21.51	128
21	54.394	52	42.77	42	48.48	1	68.21	338	8.864	9	67.06	261	46.443	29	20.23	126
31	54.446	82	43.19	30	48.47	16	64.83	351	8.855	35	64.45	263	46.472	59	18.97	119
Feb. 10	54.528	112	43.49	14	48.63	32	61.32	355	8.890	81	61.82	254	46.531	90	17.78	104
20	54.640	142	43.63	5	48.95	48	57.77	351	8.971	127	59.28	235	46.621	123	16.74	83
März 2	54.782	173	43.58	27	49.43	63	54.26	339	9.098	172	56.93	206	46.744	155	15.91	58
12	54.955	202	43.31	51	50.06	76	50.87	320	9.270	217	54.87	168	46.899	186	15.33	28
22	55.157	231	42.80	76	50.82	87	47.67	295	9.487	257	53.19	122	47.085	218	15.05	6
Apr. 1	55.388	256	42.04	100	51.69	98	44.72	263	9.744	294	51.97	72	47.303	246	15.11	41
11	55.644	280	41.04	122	52.67	107	42.09	227	10.038	324	51.25	17	47.549	272	15.52	77
21	55.924	299	39.82	143	53.74	113	39.82	185	10.362	347	51.08	37	47.821	292	16.29	111
Mai 1	56.223	313	38.39	159	54.87	118	37.97	141	10.709	362	51.45	90	48.113	308	17.40	142
11	56.536	320	36.80	172	56.05	120	36.56	93	11.071	369	52.35	142	48.421	317	18.82	169
21	56.856	321	35.08	179	57.25	119	35.63	43	11.440	365	53.77	188	48.738	319	20.51	191
31	57.177	314	33.29	182	58.44	116	35.20	8	11.805	352	55.65	228	49.057	313	22.42	209
Juni 10	57.491	300	31.47	179	59.60	110	35.28	57	12.157	331	57.93	263	49.370	300	24.51	220
20	57.791	278	29.68	171	60.70	102	35.85	106	12.488	300	60.56	290	49.670	279	26.71	226
30	58.069	250	27.97	160	61.72	91	36.91	151	12.788	263	63.46	309	49.949	250	28.97	225
Juli 10	58.319	215	26.37	145	62.63	77	38.42	190	13.051	218	66.55	322	50.199	217	31.22	220
20	58.534	176	24.92	127	63.40	61	40.32	225	13.269	169	69.77	326	50.416	178	33.42	209
30	58.710	133	23.65	107	64.01	44	42.57	252	13.438	118	73.03	324	50.594	136	35.51	195
Aug. 9	58.843	89	22.58	86	64.45	25	45.09	271	13.556	65	76.27	314	50.730	93	37.46	177
18	[14] 58.932	44	21.72	65	[16] 64.70	6	47.80	279	[15] 13.621	12	79.41	298	[17] 50.823	48	39.23	156
28	58.976	1	21.07	44	64.76	13	50.59	278	13.633	39	82.39	277	50.871	5	40.79	133
Sept. 7	58.977	38	20.63	25	64.63	31	53.37	265	13.594	84	85.16	251	50.876	33	42.12	110
17	58.939	72	20.38	8	64.32	49	56.02	243	13.510	125	87.67	219	50.843	67	43.22	86
27	58.867	99	20.30	8	63.83	63	58.45	211	13.385	158	89.86	183	50.776	95	44.08	61
Okt. 7	58.768	118	20.38	21	63.20	74	60.56	168	13.227	183	91.69	144	50.681	115	44.69	36
17	58.650	130	20.59	32	62.46	84	62.24	119	13.044	201	93.13	101	50.566	129	45.05	13
27	58.520	133	20.91	41	61.62	88	63.43	63	12.843	210	94.14	57	50.437	134	45.18	10
Nov. 6	58.387	129	21.32	48	60.74	89	64.06	5	12.633	210	94.71	10	50.303	133	45.08	33
16	58.258	117	21.80	53	59.85	87	64.11	55	12.423	203	94.81	37	50.170	125	44.75	55
26	58.141	100	22.33	57	58.98	80	63.56	114	12.220	189	94.44	84	50.045	111	44.20	74
Dez. 6	58.041	78	22.90	60	58.18	70	62.42	170	12.031	168	93.60	128	49.934	92	43.46	91
16	57.963	53	23.50	60	57.48	59	60.72	221	11.863	141	92.32	169	49.842	70	42.55	107
26	57.910	25	24.10	58	56.89	44	58.51	264	11.722	109	90.63	204	49.772	45	41.48	118
36	57.885		24.68		56.45		55.87		11.613		88.59		49.727		40.30	
Mittl. Ort	55.668		32.23		52.29		53.60		10.892		70.18		47.812		28.06	
sec δ, tg δ	1.005		−0.103		4.693		−4.586		1.307		+0.842		1.014		+0.168	
a, *a′*	+3.2		+15.8		+6.7		+16.1		+2.4		+16.1		+2.9		+16.5	
b, *b′*	−0.01		+ 0.62		−0.25		+ 0.60		+0.05		+ 0.59		+0.01		+ 0.57	

Tag	819) δ Capricorni AR.		Dekl.		821) π² Cygni AR.		Dekl.		822) γ Gruis AR.		Dekl.		823) 16 Pegasi AR.		Dekl.	
1931	21ʰ 43ᵐ		−16° 26′		21ʰ 44ᵐ		+48° 59′		21ʰ 49ᵐ		−37° 41′		21ʰ 49ᵐ		+25° 35′	
	s		″		s		″		s		″		s		″	
Jan. 1	12.902	18	40.37	4	12.375	139	26.64	230	44.187	39	41.56	103	53.768	60	58.42	177
11	12.884	12	40.41	8	12.236	95	24.34	259	44.148	2	40.53	128	53.708	31	56.65	192
21	12.896	42	40.33	23	12.141	47	21.75	278	44.146	35	39.25	150	53.677	2	54.73	200
31	12.938	72	40.10	39	12.094	5	18.97	287	44.181	74	37.75	169	53.679	36	52.73	198
Feb. 10	13.010	104	39.71	55	12.099	60	16.10	283	44.255	111	36.06	186	53.715	72	50.75	189
20	13.114	135	39.16	72	12.159	116	13.27	267	44.366	150	34.20	198	53.787	109	48.86	170
März 2	13.249	166	38.44	91	12.275	172	10.60	241	44.516	187	32.22	209	53.896	146	47.16	143
12	13.415	197	37.53	109	12.447	226	8.19	204	44.703	225	30.13	216	54.042	184	45.73	109
22	13.612	228	36.44	127	12.673	275	6.15	160	44.928	261	27.97	219	54.226	219	44.64	70
Apr. 1	13.840	256	35.17	143	12.948	320	4.55	108	45.189	294	25.78	217	54.445	253	43.94	26
11	14.096	282	33.74	156	13.268	357	3.47	52	45.483	325	23.61	213	54.698	281	43.68	19
21	14.378	303	32.18	166	13.625	385	2.95	6	45.808	350	21.48	203	54.979	305	43.87	65
Mai 1	14.681	320	30.52	173	14.010	403	3.01	63	46.158	371	19.45	189	55.284	323	44.52	110
11	15.001	331	28.79	174	14.413	411	3.64	119	46.529	385	17.56	170	55.607	332	45.62	151
21	15.332	335	27.05	172	14.824	409	4.83	171	46.914	390	15.86	147	55.939	335	47.13	187
31	15.667	331	25.33	165	15.233	394	6.54	217	47.304	387	14.39	120	56.274	328	49.00	218
Juni 10	15.998	319	23.68	153	15.627	370	8.71	257	47.691	375	13.19	91	56.602	313	51.18	244
20	16.317	299	22.15	136	15.997	335	11.28	291	48.066	354	12.28	59	56.915	291	53.62	262
30	16.616	272	20.79	118	16.332	294	14.19	317	48.420	323	11.69	26	57.206	261	56.24	274
Juli 10	16.888	238	19.61	96	16.626	244	17.36	335	48.743	285	11.43	7	57.467	225	58.98	280
20	17.126	200	18.65	73	16.870	189	20.71	345	49.028	240	11.50	39	57.692	184	61.78	278
30	17.326	156	17.92	49	17.059	130	24.16	348	49.268	189	11.89	69	57.876	139	64.56	272
Aug. 9	17.482	110	17.43	26	17.189	71	27.64	343	49.457	135	12.58	94	58.015	93	67.28	258
18*)	[18] 17.592	64	17.17	4	[18] 17.260	12	31.07	331	[20] 49.592	79	13.52	116	[20] 58.108	47	69.86	242
28	17.656	18	17.13	16	17.272	45	34.38	312	49.671	24	14.68	132	58.155	2	72.28	220
Sept. 7	17.674	23	17.29	32	17.227	98	37.50	288	49.695	27	16.00	141	58.157	39	74.48	195
17	17.651	60	17.61	46	17.129	146	40.38	258	49.668	74	17.41	143	58.118	76	76.43	166
27	17.591	91	18.07	55	16.983	185	42.96	222	49.594	113	18.84	140	58.042	106	78.09	136
Okt. 7	17.500	113	18.62	60	16.798	217	45.18	181	49.481	143	20.24	128	57.936	129	79.45	103
17	17.387	128	19.22	63	16.581	240	46.99	137	49.338	164	21.52	111	57.807	146	80.48	69
27	17.259	134	19.85	60	16.341	255	48.36	90	49.174	175	22.63	88	57.661	155	81.17	33
Nov. 6	17.125	132	20.45	56	16.086	259	49.26	38	48.999	175	23.51	62	57.506	156	81.50	3
16	16.993	123	21.01	50	15.827	256	49.64	14	48.824	166	24.13	33	57.350	150	81.47	39
26	16.870	107	21.51	42	15.571	244	49.50	65	48.658	149	24.46	2	57.200	139	81.08	74
Dez. 6	16.763	87	21.93	32	15.327	223	48.85	116	48.509	124	24.48	29	57.061	122	80.34	107
16	16.676	63	22.25	21	15.104	195	47.69	163	48.385	95	24.19	59	56.939	101	79.27	137
26	16.613	35	22.46	10	14.909	161	46.06	205	48.290	61	23.60	88	56.838	77	77.90	162
36	16.578		22.56		14.748		44.01		48.229		22.72		56.761		76.28	
Mittl. Ort	14.087		28.56		14.540		22.60		45.359		25.06		55.275		59.24	
sec δ, tg δ	1.043		−0.295		1.524		+1.150		1.264		−0.773		1.109		+0.479	
a, *a′*	+3.3		+16.6		+2.2		+16.6		+3.6		+16.9		+2.7		+16.9	
b, *b′*	−0.02		+ 0.56		+0.06		+ 0.56		−0.04		+ 0.54		+0.03		+ 0.54	

*) Bei Stern 822) und 823) lies Aug. 19

Tag	827) α Aquarii AR.		827) α Aquarii Dekl.		828) ι Aquarii AR.		828) ι Aquarii Dekl.		830) 20 Cephei AR.		830) 20 Cephei Dekl.		829) α Gruis AR.		829) α Gruis Dekl.	
1931	22h 2m		−0° 39′		22h 2m		−14° 12′		22h 2m		+62° 26′		22h 3m		−47° 17′	
	s		"		s		"		s		"		s		"	
Jan. 1	13.268	36	28.22	76	41.676	34	29.55	15	51.67	28	62.61	217	52.444	76	64.95	142
11	13.232	11	28.98	72	41.642	7	29.70	2	51.39	22	60.44	256	52.368	34	63.53	174
21	13.221	16	29.70	65	41.635	21	29.72	12	51.17	15	57.88	286	52.334	9	61.79	200
31	13.237	45	30.35	54	41.656	50	29.60	28	51.02	8	55.02	303	52.343	54	59.79	223
Feb. 10	13.282	74	30.89	39	41.706	81	29.32	46	50.94	0	51.99	310	52.397	99	57.56	240
20	13.356	105	31.28	20	41.787	112	28.86	64	50.94	9	48.89	303	52.496	145	55.16	253
März 2	13.461	137	31.48	4	41.899	144	28.22	84	51.03	17	45.86	283	52.641	189	52.63	260
12	13.598	169	31.44	29	42.043	176	27.38	104	51.20	25	43.03	252	52.830	234	50.03	264
22	13.767	201	31.15	56	42.219	208	26.34	123	51.45	33	40.51	211	53.064	277	47.39	262
Apr. 1	13.968	232	30.59	84	42.427	239	25.11	142	51.78	40	38.40	162	53.341	317	44.77	254
11	14.200	259	29.75	111	42.666	266	23.69	158	52.18	45	36.78	107	53.658	354	42.23	242
21	14.459	283	28.64	137	42.932	291	22.11	171	52.63	50	35.71	48	54.012	386	39.81	226
Mai 1	14.742	301	27.27	158	43.223	311	20.40	180	53.13	52	35.23	13	54.398	411	37.55	203
11	15.043	315	25.69	176	43.534	325	18.60	184	53.65	54	35.36	73	54.809	429	35.52	177
21	15.358	321	23.93	190	43.859	331	16.76	184	54.19	54	36.09	131	55.238	439	33.75	146
31	15.679	319	22.03	198	44.190	331	14.92	179	54.73	52	37.40	184	55.677	438	32.29	111
Juni 10	15.998	310	20.05	200	44.521	322	13.13	169	55.25	49	39.24	233	56.115	427	31.18	74
20	16.308	293	18.05	198	44.843	305	11.44	155	55.74	45	41.57	274	56.542	406	30.44	35
30	16.601	268	16.07	190	45.148	280	9.89	137	56.19	39	44.31	310	56.948	374	30.09	4
Juli 10	16.869	238	14.17	179	45.428	250	8.52	116	56.58	33	47.41	337	57.322	334	30.13	42
20	17.107	202	12.38	163	45.678	213	7.36	93	56.91	25	50.78	356	57.656	284	30.55	79
30	17.309	161	10.75	144	45.891	171	6.43	69	57.16	18	54.34	367	57.940	228	31.34	113
Aug. 9	17.470	118	9.31	124	46.062	127	5.74	44	57.34	10	58.01	372	58.168	167	32.47	141
19	17.588	74	8.07	102	46.189	81	5.30	21	57.44	1	61.73	367	58.335	103	33.88	164
28	23 17.662	32	7.05	79	23 46.270	37	5.09	1	23 57.45	6	65.40	355	23 58.438	39	35.52	180
Sept. 7	17.694	8	6.26	57	46.307	6	5.10	20	57.39	13	68.95	336	58.477	21	37.32	187
17	17.686	44	5.69	36	46.301	43	5.30	36	57.26	20	72.31	311	58.456	78	39.19	187
27	17.642	73	5.33	17	46.258	75	5.66	47	57.06	26	75.42	278	58.378	126	41.06	179
Okt. 7	17.569	97	5.16	1	46.183	99	6.13	56	56.80	31	78.20	240	58.252	166	42.85	162
17	17.472	113	5.17	17	46.084	117	6.69	61	56.49	35	80.60	195	58.086	194	44.47	138
27	17.359	121	5.34	31	45.967	125	7.30	62	56.14	38	82.55	146	57.892	211	45.85	108
Nov. 6	17.238	123	5.65	43	45.842	127	7.92	60	55.76	40	84.01	93	57.681	216	46.93	73
16	17.115	118	6.08	53	45.715	122	8.52	56	55.36	40	84.94	36	57.465	210	47.66	35
26	16.997	107	6.61	61	45.593	110	9.08	49	54.96	40	85.30	22	57.255	195	48.01	6
Dez. 6	16.890	91	7.22	68	45.483	93	9.57	41	54.56	38	85.08	79	57.060	170	47.95	47
16	16.799	73	7.90	73	45.390	73	9.98	32	54.18	35	84.29	135	56.890	139	47.48	85
26	16.726	51	8.63	74	45.317	49	10.30	20	53.83	30	82.94	186	56.751	102	46.63	123
36	16.675		9.37		45.268		10.50		53.53		81.08		56.649		45.40	
Mittl. Ort	14.433		20.83		42.768		18.49		54.60		54.89		53.569		46.51	
sec δ, tg δ	1.000		−0.011		1.032		−0.253		2.162		+1.917		1.474		−1.084	
a, a′	+3.1		+17.5		+3.2		+17.5		+1.8		+17.5		+3.8		+17.5	
b, b′	0.00		+ 0.49		−0.01		+ 0.49		+0.11		+ 0.49		−0.06		+ 0.49	

Scheinbare Sternörter 1931

Tag	834) ϑ Pegasi AR.		834) ϑ Pegasi Dekl.		835) π Pegasi AR.		835) π Pegasi Dekl.	
1931	22h 6m		+5° 51′		22h 6m		+32° 50′	
Jan. 1	41.962 s	43	22.28 ″	101	53.678 s	90	22.39 ″	184
11	41.919	19	21.27	103	53.588	61	20.55	205
21	41.900	8	20.24	99	53.527	28	18.50	219
31	41.908	37	19.25	91	53.499	9	16.31	224
Feb. 10	41.945	67	18.34	77	53.508	47	14.07	219
20	42.012	98	17.57	58	53.555	88	11.88	204
März 2	42.110	131	16.99	34	53.643	131	9.84	179
12	42.241	164	16.65	7	53.774	172	8.05	147
22	42.405	197	16.58	24	53.946	213	6.58	108
Apr. 1	42.602	228	16.82	55	54.159	251	5.50	64
11	42.830	256	17.37	87	54.410	285	4.86	15
21	43.086	282	18.24	118	54.695	312	4.71	34
Mai 1	43.368	301	19.42	146	55.007	334	5.05	82
11	43.669	314	20.88	170	55.341	347	5.87	129
21	43.983	321	22.58	190	55.688	352	7.16	171
31	44.304	319	24.48	204	56.040	347	8.87	210
Juni 10	44.623	311	26.52	213	56.387	333	10.97	241
20	44.934	293	28.65	217	56.720	312	13.38	266
30	45.227	270	30.82	214	57.032	282	16.04	285
Juli 10	45.497	238	32.96	207	57.314	246	18.89	296
20	45.735	202	35.03	195	57.560	204	21.85	301
30	45.937	163	36.98	180	57.764	158	24.86	300
Aug. 9	46.100	120	38.78	161	57.922	110	27.86	292
19	46.220	76	40.39	141	58.032	62	30.78	277
28	[24]46.296	34	41.80	118	[24]58.094	14	33.55	259
Sept. 7	46.330	6	42.98	95	58.108	30	36.14	235
17	46.324	41	43.93	72	58.078	69	38.49	208
27	46.283	72	44.65	49	58.009	104	40.57	176
Okt. 7	46.211	95	45.14	27	57.905	130	42.33	142
17	46.116	112	45.41	7	57.775	151	43.75	106
27	46.004	120	45.48	13	57.624	164	44.81	66
Nov. 6	45.884	123	45.35	32	57.460	169	45.47	26
16	45.761	120	45.03	49	57.291	168	45.73	16
26	45.641	110	44.54	64	57.123	160	45.57	56
Dez. 6	45.531	96	43.90	77	56.963	148	45.01	96
16	45.435	78	43.13	88	56.815	129	44.05	132
26	45.357	57	42.25	96	56.686	105	42.73	165
36	45.300		41.29		56.581		41.08	
Mittl. Ort	43.157		27.71		55.249		20.48	
sec δ, tg δ	1.005		+0.103		1.190		+0.645	
a, a'	+3.0		+17.6		+2.7		+17.7	
b, b'	+0.01		+ 0.47		+0.04		+ 0.47	

Tag	836) ζ Cephei AR.		836) ζ Cephei Dekl.		837) 24 Cephei AR.		837) 24 Cephei Dekl	
1931	22h 8m		+57° 51′		22h 8m		+71° 59′	
Jan. 1	24.918 s	231	45.64 ″	211	24.84 s	50	73.28 ″	205
11	24.687	182	43.53	249	24.34	40	71.23	248
21	24.505	125	41.04	277	23.94	30	68.75	284
31	24.380	62	38.27	295	23.64	19	65.91	308
Feb. 10	24.318	7	35.32	300	23.45	6	62.83	318
20	24.325	79	32.32	293	23.39	8	59.65	316
März 2	24.404	151	29.39	273	23.47	20	56.49	302
12	24.555	222	26.66	243	23.67	33	53.47	274
22	24.777	288	24.23	202	24.00	44	50.73	236
Apr. 1	25.065	348	22.21	154	24.44	55	48.37	190
11	25.413	399	20.67	100	24.99	63	46.47	135
21	25.812	440	19.67	42	25.62	69	45.12	76
Mai 1	26.252	468	19.25	18	26.31	74	44.36	16
11	26.720	483	19.43	76	27.05	75	44.20	46
21	27.203	485	20.19	133	27.80	75	44.66	105
31	27.688	473	21.52	185	28.55	73	45.71	161
Juni 10	28.161	448	23.37	232	29.28	68	47.32	214
20	28.609	411	25.69	273	29.96	61	49.46	259
30	29.020	365	28.42	306	30.57	54	52.05	299
Juli 10	29.385	309	31.48	332	31.11	44	55.04	330
20	29.694	247	34.80	351	31.55	34	58.34	354
30	29.941	179	38.31	362	31.89	23	61.88	370
Aug. 9	30.120	110	41.93	364	32.12	12	65.58	379
19	30.230	39	45.57	359	32.24	0	69.37	379
28	[24]30.269	30	49.16	347	[24]32.24	11	73.16	372
Sept. 7	30.239	94	52.63	328	32.13	22	76.88	356
17	30.145	154	55.91	302	31.91	32	80.44	334
27	29.991	206	58.93	271	31.59	40	83.78	304
Okt. 7	29.785	251	61.64	232	31.19	49	86.82	268
17	29.534	286	63.96	189	30.70	56	89.50	225
27	29.248	312	65.85	140	30.14	60	91.75	177
Nov. 6	28.936	327	67.25	89	29.54	63	93.52	122
16	28.609	333	68.14	34	28.91	66	94.74	65
26	28.276	329	68.48	22	28.25	65	95.39	5
Dez. 6	27.947	314	68.26	78	27.60	63	95.44	56
16	27.633	289	67.48	132	26.97	60	94.88	115
26	27.344	255	66.16	181	26.37	54	93.73	171
36	27.089		64.35		25.83		92.02	
Mittl. Ort	27.441		38.25		29.09		63.87	
sec δ, tg δ	1.880		+1.592		3.236		+3.078	
a, a'	+2.1		+17.7		+1.1		+17.7	
b, b'	+0.09		+ 0.47		+0.18		+ 0.47	

Tag	840) ϑ Aquarii AR.		840) ϑ Aquarii Dekl.		841) α Tucanae AR.		841) α Tucanae Dekl.	
1931	22h 13m		−8° 7′		22h 13m		−60° 35′	
Jan. 1	10.582	41	48.35	42	46.23	16	96.51	194
11	10.541	16	48.77	33	46.07	10	94.57	232
21	10.525	9	49.10	22	45.97	4	92.25	263
31	10.534	37	49.32	7	45.93	3	89.62	286
Feb. 10	10.571	67	49.39	9	45.96	9	86.76	304
20	10.638	98	49.30	29	46.05	15	83.72	315
März 2	10.736	130	49.01	50	46.20	22	80.57	319
12	10.866	162	48.51	73	46.42	28	77.38	316
22	11.028	194	47.78	96	46.70	34	74.22	307
Apr. 1	11.222	226	46.82	119	47.04	40	71.15	292
11	11.448	255	45.63	140	47.44	45	68.23	270
21	11.703	281	44.23	158	47.89	49	65.53	244
Mai 1	11.984	302	42.65	173	48.38	52	63.09	213
11	12.286	317	40.92	185	48.90	55	60.96	176
21	12.603	324	39.07	190	49.45	57	59.20	135
31	12.927	326	37.17	192	50.02	57	57.85	91
Juni 10	13.253	318	35.25	187	50.59	55	56.94	46
20	13.571	303	33.38	179	51.14	53	56.48	0
30	13.874	281	31.59	165	51.67	49	56.48	46
Juli 10	14.155	251	29.94	148	52.16	44	56.94	91
20	14.406	216	28.46	128	52.60	37	57.85	131
30	14.622	175	27.18	106	52.97	30	59.16	168
Aug. 9	14.797	133	26.12	83	53.27	22	60.84	198
19	14.930	89	25.29	59	53.49	14	62.82	220
28	[25] 15.019	45	24.70	36	[26] 53.63	5	65.02	235
Sept. 7	15.064	4	24.34	15	53.68	4	67.37	239
17	15.068	33	24.19	3	53.64	11	69.76	234
27	15.035	64	24.22	20	53.53	18	72.10	220
Okt. 7	14.971	89	24.42	33	53.35	24	74.30	195
17	14.882	107	24.75	43	53.11	29	76.25	163
27	14.775	118	25.18	50	52.82	32	77.88	122
Nov. 6	14.657	121	25.68	55	52.50	33	79.10	76
16	14.536	117	26.23	57	52.17	33	79.86	27
26	14.419	108	26.80	56	51.84	32	80.13	24
Dez. 6	14.311	94	27.36	55	51.52	28	79.89	76
16	14.217	77	27.91	52	51.24	24	79.13	124
26	14.140	55	28.43	44	51.00	20	77.89	170
36	14.085		28.87		50.80		76.19	
Mittl. Ort	11.648		39.12		47.43		75.96	
sec δ, tg δ	1.010		−0.143		2.037		−1.775	
a, a′	+3.2		+17.9		+4.1		+17.9	
b, b′	−0.01		+ 0.45		−0.11		+ 0.45	

Tag	842) γ Aquarii AR.		842) γ Aquarii Dekl.		844) 3 Lacertae AR.		844) 3 Lacertae Dekl.	
1931	22h 18m		−1° 43′		22h 20m		+51° 52′	
Jan. 1	4.494	46	75.93	68	48.475	190	65.15	196
11	4.448	23	76.61	64	48.285	152	63.19	233
21	4.425	2	77.25	56	48.133	106	60.86	260
31	4.427	30	77.81	44	48.027	54	58.26	277
Feb. 10	4.457	59	78.25	29	47.973	3	55.49	282
20	4.516	90	78.54	10	47.976	62	52.67	277
März 2	4.606	122	78.64	12	48.038	123	49.90	258
12	4.728	154	78.52	37	48.161	184	47.32	229
22	4.882	188	78.15	63	48.345	242	45.03	191
Apr. 1	5.070	220	77.52	90	48.587	298	43.12	145
11	5.290	249	76.62	117	48.885	345	41.67	93
21	5.539	276	75.45	141	49.230	384	40.74	37
Mai 1	5.815	297	74.04	162	49.614	412	40.37	20
11	6.112	313	72.42	179	50.026	430	40.57	76
21	6.425	321	70.63	191	50.456	437	41.33	130
31	6.746	322	68.72	199	50.893	431	42.63	180
Juni 10	7.068	315	66.73	201	51.324	413	44.43	226
20	7.383	301	64.72	198	51.737	386	46.69	265
30	7.684	278	62.74	190	52.123	347	49.34	296
Juli 10	7.962	250	60.84	177	52.470	301	52.30	322
20	8.212	215	59.07	161	52.771	248	55.52	339
30	8.427	176	57.46	142	53.019	191	58.91	349
Aug. 9	8.603	134	56.04	121	53.210	130	62.40	351
19	8.737	91	54.83	98	53.340	69	65.91	346
28	[27] 8.828	48	53.85	75	[27] 53.409	8	69.37	334
Sept. 7	8.876	7	53.10	53	53.417	49	72.71	315
17	8.883	29	52.57	32	53.368	102	75.86	291
27	8.854	60	52.25	12	53.266	149	78.77	260
Okt. 7	8.794	85	52.13	5	53.117	188	81.37	224
17	8.709	103	52.18	21	52.929	220	83.61	182
27	8.606	114	52.39	33	52.709	244	85.43	137
Nov. 6	8.492	118	52.72	44	52.465	259	86.80	88
16	8.374	116	53.16	53	52.206	266	87.68	36
26	8.258	108	53.69	60	51.940	264	88.04	17
Dez. 6	8.150	95	54.29	65	51.676	253	87.87	70
16	8.055	79	54.94	68	51.423	235	87.17	122
26	7.976	59	55.62	68	51.188	208	85.95	168
36	7.917		56.30		50.980		84.27	
Mittl. Ort	5.576		68.64		50.581		58.02	
sec δ, tg δ	1.000		−0.030		1.620		+1.275	
a, a′	+3.1		+18.1		+2.4		+18.2	
b, b′	0.00		+ 0.43		+0.08		+ 0.42	

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Tag	848) 7 Lacertae AR.		848) 7 Lacertae Dekl.		850) η Aquarii AR.		850) η Aquarii Dekl.		852) 10 Lacertae AR.		852) 10 Lacertae Dekl.		855) ζ Pegasi AR.		855) ζ Pegasi Dekl.	
1931	22ʰ 28ᵐ		+49° 55′		22ʰ 31ᵐ		−0° 28′		22ʰ 36ᵐ		+38° 41′		22ʰ 37ᵐ		+10° 28′	
Jan. 1	24.733	182	45.31	187	47.652	56	31.99	72	8.160	129	31.39	169	60.108	67	11.23	106
11	24.551	146	43.44	223	47.596	34	32.71	67	8.031	103	29.70	198	60.041	47	10.17	112
21	24.405	105	41.21	250	47.562	10	33.38	60	7.928	71	27.72	219	59.994	23	9.05	113
31	24.300	57	38.71	268	47.552	16	33.98	50	7.857	34	25.53	232	59.971	3	7.92	108
Feb. 10	24.243	5	36.03	274	47.568	44	34.48	34	7.823	7	23.21	234	59.974	32	6.84	97
20	24.238	53	33.29	268	47.612	75	34.82	16	7.830	51	20.87	226	60.006	65	5.87	81
März 2	24.291	111	30.61	252	47.687	108	34.98	6	7.881	97	18.61	208	60.071	98	5.06	58
12	24.402	170	28.09	225	47.795	141	34.92	31	7.978	145	16.53	180	60.169	133	4.48	33
22	24.572	228	25.84	187	47.936	175	34.61	58	8.123	193	14.73	145	60.302	170	4.15	2
Apr. 1	24.800	280	23.97	142	48.111	208	34.03	85	8.316	238	13.28	102	60.472	204	4.13	30
11	25.080	328	22.55	92	48.319	240	33.18	112	8.554	278	12.26	56	60.676	238	4.43	65
21	25.408	367	21.63	38	48.559	268	32.06	137	8.832	313	11.70	6	60.914	266	5.08	98
Mai 1	25.775	398	21.25	18	48.827	291	30.69	160	9.145	342	11.64	45	61.180	291	6.06	130
11	26.173	416	21.43	74	49.118	309	29.09	178	9.487	361	12.09	94	61.471	310	7.36	158
21	26.589	425	22.17	127	49.427	320	27.31	192	9.848	371	13.03	142	61.781	321	8.94	183
31	27.014	422	23.44	176	49.747	323	25.39	202	10.219	372	14.45	184	62.102	325	10.77	203
Juni 10	27.436	407	25.20	221	50.070	318	23.37	205	10.591	362	16.29	222	62.427	320	12.80	217
20	27.843	382	27.41	260	50.388	306	21.32	203	10.953	345	18.51	254	62.747	307	14.97	225
30	28.225	347	30.01	291	50.694	285	19.29	196	11.298	317	21.05	280	63.054	287	17.22	229
Juli 10	28.572	304	32.92	317	50.979	258	17.33	185	11.615	282	23.85	298	63.341	260	19.51	226
20	28.876	255	36.09	334	51.237	226	15.48	170	11.897	241	26.83	310	63.601	227	21.77	218
30	29.131	199	39.43	344	51.463	187	13.78	151	12.138	196	29.93	315	63.828	188	23.95	206
Aug. 9	29.330	142	42.87	346	51.650	146	12.27	130	12.334	147	33.08	313	64.016	148	26.01	189
19	29.472	83	46.33	342	51.796	103	10.97	107	12.481	97	36.21	304	64.164	106	27.90	171
29	29.555	25	49.75	330	51.899	61	9.90	85	12.578	47	39.25	291	64.270	63	29.61	149
Sept. 7	29.580	31	53.05	313	51.960	20	9.05	62	12.625	1	42.16	271	64.333	23	31.10	127
17	29.549	82	56.18	288	51.980	16	8.43	39	12.624	44	44.87	246	64.356	14	32.37	102
27	29.467	128	59.06	259	51.964	49	8.04	19	12.580	83	47.33	218	64.342	47	33.39	78
Okt. 7	29.339	166	61.65	223	51.915	75	7.85	1	12.497	115	49.51	185	64.295	73	34.17	54
17	29.173	199	63.88	184	51.840	94	7.84	16	12.382	142	51.36	148	64.222	93	34.71	31
27	28.974	222	65.72	139	51.746	107	8.00	30	12.240	161	52.84	109	64.129	108	35.02	8
Nov. 6	28.752	238	67.11	92	51.639	114	8.30	42	12.079	174	53.93	66	64.021	115	35.10	14
16	28.514	246	68.03	41	51.525	114	8.72	51	11.905	180	54.59	23	63.906	117	34.96	34
26	28.268	245	68.44	11	51.411	108	9.23	59	11.725	179	54.82	21	63.789	114	34.62	54
Dez. 6	28.023	237	68.33	62	51.303	98	9.82	66	11.546	172	54.61	66	63.675	105	34.08	72
16	27.786	222	67.71	113	51.205	84	10.48	69	11.374	160	53.95	108	63.570	94	33.36	87
26	27.564	197	66.58	159	51.121	68	11.17	71	11.214	141	52.87	146	63.476	78	32.49	99
36	27.367		64.99		51.053		11.88		11.073		51.41		63.398		31.50	
Mittl. Ort	26.706		38.07		48.674		25.47		9.721		26.33		61.198		14.19	
sec δ, tg δ	1.553		+1.189		1.000		−0.008		1.281		+0.801		1.017		+0.185	
a, *a*′	+2.5		+18.5		+3.1		+18.6		+2.7		+18.7		+3.0		+18.8	
b, *b*′	+0.07		+ 0.39		0.00		+ 0.38		+0.05		+ 0.36		+0.01		+ 0.35	

Tag	856) β Gruis AR.		856) β Gruis Dekl.		857) η Pegasi AR.		857) η Pegasi Dekl.		859) λ Pegasi AR.		859) λ Pegasi Dekl.		860) ε Gruis AR.		860) ε Gruis Dekl.	
1931	22ʰ 38ᵐ		−47° 14′		22ʰ 39ᵐ		+29° 51′		22ʰ 43ᵐ		+23° 11′		22ʰ 44ᵐ		−51° 40′	
Jan. 1	32ˢ.413	116	65″.25	122	44ˢ.552	103	38″.09	153	11ˢ.099	89	68″.50	137	22ˢ.930	143	68″.66	135
11	32.297	80	64.03	158	44.449	79	36.56	175	11.010	68	67.13	154	22.787	105	67.31	175
21	32.217	42	62.45	190	44.370	52	34.81	190	10.942	43	65.59	164	22.682	62	65.56	209
31	32.175	0	60.55	219	44.318	21	32.91	198	10.899	15	63.95	168	22.620	16	63.47	238
Feb. 10	32.175	44	58.36	241	44.297	14	30.93	196	10.884	18	62.27	164	22.604	31	61.09	263
20	32.219	88	55.95	260	44.311	53	28.97	185	10.902	53	60.63	151	22.635	80	58.46	282
März 2	32.307	134	53.35	273	44.364	93	27.12	166	10.955	90	59.12	131	22.715	131	55.64	294
12	32.441	180	50.62	281	44.457	136	25.46	139	11.045	130	57.81	104	22.846	183	52.70	302
22	32.621	227	47.81	284	44.593	178	24.07	104	11.175	170	56.77	72	23.029	233	49.68	302
Apr. 1	32.848	272	44.97	282	44.771	218	23.03	65	11.345	208	56.05	34	23.262	282	46.66	297
11	33.120	314	42.15	272	44.989	256	22.38	21	11.553	244	55.71	7	23.544	329	43.69	286
21	33.434	353	39.43	259	45.245	289	22.17	24	11.797	276	55.78	48	23.873	372	40.83	270
Mai 1	33.787	385	36.84	239	45.534	316	22.41	70	12.073	302	56.26	89	24.245	408	38.13	247
11	34.172	411	34.45	214	45.850	335	23.11	113	12.375	321	57.15	128	24.653	436	35.66	218
21	34.583	428	32.31	184	46.185	346	24.24	155	12.696	334	58.43	164	25.089	456	33.48	185
31	35.011	436	30.47	150	46.531	349	25.79	191	13.030	337	60.07	195	25.545	466	31.63	148
Juni 10	35.447	433	28.97	112	46.880	342	27.70	223	13.367	332	62.02	221	26.011	464	30.15	108
20	35.880	420	27.85	72	47.222	326	29.93	248	13.699	319	64.23	241	26.475	452	29.07	64
30	36.300	395	27.13	30	47.548	303	32.41	267	14.018	296	66.64	256	26.927	427	28.43	19
Juli 10	36.695	361	26.83	13	47.851	272	35.08	280	14.314	269	69.20	263	27.354	392	28.24	25
20	37.056	319	26.96	53	48.123	235	37.88	285	14.583	233	71.83	264	27.746	346	28.49	69
30	37.375	267	27.49	92	48.358	193	40.73	286	14.816	194	74.47	261	28.092	292	29.18	109
Aug. 9	37.642	209	28.41	126	48.551	149	43.59	280	15.010	152	77.08	251	28.384	231	30.27	144
19	37.851	148	29.67	156	48.700	102	46.39	268	15.162	108	79.59	237	28.615	165	31.71	175
29	37.999	86	31.23	179	48.802	57	49.07	252	15.270	64	81.96	219	28.780	96	33.46	197
Sept. 7	[1] 38.085	24	33.02	192	[1] 48.859	13	51.59	231	[2] 15.334	22	84.15	198	[2] 28.876	29	35.43	213
17	38.109	35	34.94	199	48.872	27	53.90	206	15.356	17	86.13	174	28.905	35	37.56	217
27	38.074	87	36.93	197	48.845	63	55.96	179	15.339	51	87.87	146	28.870	94	39.73	214
Okt. 7	37.987	132	38.90	186	48.782	92	57.75	148	15.288	79	89.33	118	28.776	145	41.87	201
17	37.855	167	40.76	167	48.690	116	59.23	114	15.209	102	90.51	88	28.631	184	43.88	180
27	37.688	192	42.43	139	48.574	133	60.37	79	15.107	118	91.39	56	28.447	215	45.68	150
Nov. 6	37.496	207	43.82	107	48.441	144	61.16	43	14.989	128	91.95	25	28.232	232	47.18	114
16	37.289	210	44.89	69	48.297	149	61.59	5	14.861	133	92.20	7	28.000	239	48.32	72
26	37.079	203	45.58	28	48.148	148	61.64	32	14.728	131	92.13	39	27.761	234	49.04	28
Dez. 6	36.876	189	45.86	14	48.000	141	61.32	69	14.597	125	91.74	69	27.527	220	49.32	19
16	36.687	166	45.72	57	47.859	129	60.63	103	14.472	114	91.05	97	27.307	197	49.13	66
26	36.521	137	45.15	99	47.730	113	59.60	134	14.358	99	90.08	122	27.110	166	48.47	110
36	36.384		44.16		47.617		58.26		14.259		88.86		26.944		47.37	
Mittl. Ort	33.230		46.52		45.904		35.20		12.323		67.36		23.699		49.11	
sec δ, tg δ	1.473		−1.082		1.153		+0.574		1.088		+0.429		1.613		−1.265	
a, *a′*	+3.6		+18.8		+2.8		+18.8		+2.9		+18.9		+3.6		+19.0	
b, *b′*	−0.07		+ 0.35		+0.04		+ 0.34		+0.03		+ 0.33		−0.08		+ 0.32	

Scheinbare Sternörter 1931

Tag	863) ι Cephei AR.		863) ι Cephei Dekl.		864) λ Aquarii AR.		864) λ Aquarii Dekl.		865) ρ Indi AR.		865) ρ Indi Dekl.		866) δ Aquarii AR.		866) δ Aquarii Dekl.	
1931	22ʰ 47ᵐ		+65° 49′		22ʰ 48ᵐ		−7° 56′		22ʰ 49ᵐ		−70° 26′		22ʰ 50ᵐ		−16° 11′	
Jan. 1	10.19	38	85.28	163	60.074	65	58.44	42	52.18	37	56.56	200	58.596	68	28.31	12
11	9.81	34	83.65	211	60.009	45	58.86	31	51.81	29	54.56	246	58.528	47	28.43	6
21	9.47	27	81.54	251	59.964	23	59.17	19	51.52	21	52.10	285	58.481	25	28.37	24
31	9.20	19	79.03	280	59.941	3	59.36	4	51.31	11	49.25	316	58.456	2	28.13	43
Feb. 10	9.01	10	76.23	298	59.944	30	59.40	13	51.20	2	46.09	339	58.458	29	27.70	64
20	8.91	1	73.25	304	59.974	59	59.27	33	51.18	7	42.70	354	58.487	60	27.06	84
März 2	8.90	8	70.21	297	60.033	92	58.94	55	51.25	17	39.16	362	58.547	93	26.22	106
12	8.98	18	67.24	277	60.125	126	58.39	78	51.42	27	35.54	361	58.640	127	25.16	126
22	9.16	28	64.47	247	60.251	161	57.61	101	51.69	36	31.93	352	58.767	163	23.90	146
Apr. 1	9.44	37	62.00	207	60.412	196	56.60	124	52.05	45	28.41	338	58.930	199	22.44	165
11	9.81	44	59.93	158	60.608	229	55.36	146	52.50	53	25.03	314	59.129	232	20.79	181
21	10.25	51	58.35	104	60.837	259	53.90	165	53.03	60	21.89	286	59.361	264	18.98	193
Mai 1	10.76	55	57.31	47	61.096	286	52.25	181	53.63	67	19.03	252	59.625	290	17.05	202
11	11.31	59	56.84	13	61.382	306	50.44	192	54.30	72	16.51	211	59.915	313	15.03	206
21	11.90	61	56.97	71	61.688	320	48.52	200	55.02	75	14.40	166	60.228	327	12.97	205
31	12.51	60	57.68	128	62.008	327	46.52	202	55.77	76	12.74	118	60.555	334	10.92	199
Juni 10	13.11	59	58.96	180	62.335	325	44.50	199	56.53	77	11.56	67	60.889	334	8.93	187
20	13.70	55	60.76	229	62.660	316	42.51	190	57.30	75	10.89	15	61.223	325	7.06	171
30	14.25	50	63.05	271	62.976	298	40.61	177	58.05	71	10.74	38	61.548	308	5.35	152
Juli 10	14.75	44	65.76	306	63.274	274	38.84	160	58.76	65	11.12	88	61.856	282	3.83	128
20	15.19	37	68.82	335	63.548	242	37.24	140	59.41	57	12.00	136	62.138	252	2.55	101
30	15.56	29	72.17	355	63.790	205	35.84	116	59.98	48	13.36	179	62.390	214	1.54	74
Aug. 9	15.85	21	75.72	369	63.995	166	34.68	92	60.46	38	15.15	215	62.604	173	0.80	46
19	16.06	13	79.41	374	64.161	123	33.76	66	60.84	26	17.30	244	62.777	129	0.34	18
29	16.19	4	83.15	372	64.284	80	33.10	42	61.10	14	19.74	264	62.906	85	0.16	7
Sept. 7	(3) 16.23	5	86.87	362	(4) 64.364	39	32.68	19	(4) 61.24	1	22.38	273	(4) 62.991	42	0.23	31
17	16.18	12	90.49	345	64.403	0	32.49	3	61.25	10	25.11	272	63.033	2	0.54	49
27	16.06	20	93.94	321	64.403	33	32.52	21	61.15	22	27.83	261	63.035	35	1.03	65
Okt. 7	15.86	26	97.15	290	64.370	62	32.73	35	60.93	32	30.44	237	63.000	64	1.68	75
17	15.60	32	100.05	251	64.308	84	33.08	47	60.61	40	32.81	204	62.936	87	2.43	81
27	15.28	37	102.56	208	64.224	100	33.55	55	60.21	46	34.85	162	62.849	105	3.24	82
Nov. 6	14.91	41	104.64	158	64.124	108	34.10	60	59.75	51	36.47	113	62.744	114	4.06	79
16	14.50	43	106.22	104	64.016	112	34.70	62	59.24	53	37.60	58	62.630	117	4.85	72
26	14.07	45	107.26	47	63.904	109	35.32	62	58.71	53	38.18	0	62.513	115	5.57	63
Dez. 6	13.62	44	107.73	13	63.795	101	35.94	58	58.18	51	38.18	59	62.398	107	6.20	50
16	13.18	43	107.60	72	63.694	90	36.52	53	57.67	47	37.59	116	62.291	95	6.70	37
26	12.75	41	106.88	129	63.604	75	37.05	46	57.20	42	36.43	171	62.196	80	7.07	21
36	12.34		105.59		63.529		37.51		56.78		34.72		62.116		7.28	
Mittl. Ort	13.09		73.84		60.951		50.07		53.01		34.55		59.411		17.48	
sec δ, tg δ	2.443		+2.229		1.010		−0.140		2.987		−2.815		1.041		−0.290	
a, *a′*	+2.1		+19.0		+3.1		+19.1		+4.2		+19.1		+3.2		+19.1	
b, *b′*	+0.14		+ 0.31		−0.01		+ 0.30		−0.18		+ 0.30		−0.02		+ 0.30	

Tag	867) α Pisc. austr. AR.		Dekl.		869) o Andromedae AR.		Dekl.		870) β Pegasi AR.		Dekl.		871) α Pegasi AR.		Dekl.	
1931	22h 53m		−29° 58′		22h 58m		+41° 57′		23h 0m		+27° 42′		23h 1m		+14° 49′	
Jan. 1	49.746	83	92.63	41	43.015	156	24.00	151	24.383	107	32.54	133	18.303	85	60.32	107
11	49.663	60	92.22	69	42.859	133	22.49	185	24.276	89	31.21	155	18.218	67	59.25	118
21	49.603	34	91.53	96	42.726	103	20.64	212	24.187	65	29.66	171	18.151	46	58.07	124
31	49.569	4	90.57	122	42.623	67	18.52	229	24.122	37	27.95	178	18.105	22	56.83	122
Feb. 10	49.565	27	89.35	145	42.556	26	16.23	237	24.085	4	26.17	179	18.083	7	55.61	116
20	49.592	60	87.90	168	42.530	20	13.86	234	24.081	32	24.38	171	18.090	38	54.45	102
März 2	49.652	97	86.22	187	42.550	69	11.52	221	24.113	71	22.67	153	18.128	74	53.43	83
12	49.749	134	84.35	203	42.619	121	9.31	199	24.184	113	21.14	129	18.202	110	52.60	58
22	49.883	173	82.32	218	42.740	172	7.32	167	24.297	156	19.85	98	18.312	149	52.02	28
Apr. 1	50.056	211	80.14	227	42.912	223	5.65	128	24.453	197	18.87	61	18.461	186	51.74	5
11	50.267	248	77.87	233	43.135	269	4.37	83	24.650	237	18.26	21	18.647	222	51.79	39
21	50.515	282	75.54	235	43.404	309	3.54	34	24.887	273	18.05	22	18.869	256	52.18	75
Mai 1	50.797	311	73.19	231	43.713	343	3.20	16	25.160	302	18.27	66	19.125	284	52.93	110
11	51.108	336	70.88	222	44.056	368	3.36	66	25.462	326	18.93	107	19.409	306	54.03	142
21	51.444	352	68.66	208	44.424	383	4.02	116	25.788	340	20.00	146	19.715	322	55.45	170
31	51.796	362	66.58	189	44.807	389	5.18	161	26.128	347	21.46	182	20.037	328	57.15	195
Juni 10	52.158	362	64.69	165	45.196	383	6.79	202	26.475	344	23.28	212	20.365	327	59.10	215
20	52.520	353	63.04	137	45.579	368	8.81	238	26.819	333	25.40	237	20.692	318	61.25	227
30	52.873	336	61.67	106	45.947	344	11.19	268	27.152	313	27.77	256	21.010	301	63.52	235
Juli 10	53.209	310	60.61	72	46.291	312	13.87	292	27.465	286	30.33	269	21.311	276	65.87	237
20	53.519	276	59.89	37	46.603	272	16.79	307	27.751	252	33.02	275	21.587	245	68.24	234
30	53.795	237	59.52	3	46.875	227	19.86	317	28.003	213	35.77	275	21.832	209	70.58	225
Aug. 9	54.032	191	59.49	30	47.102	179	23.03	320	28.216	172	38.52	269	22.041	170	72.83	213
19	54.223	144	59.79	61	47.281	128	26.23	316	28.388	127	41.21	259	22.211	128	74.96	196
29	54.367	94	60.40	87	47.409	77	29.39	306	28.515	83	43.80	244	22.339	86	76.92	176
Sept. 7	54.461	46	61.27	109	47.486	28	32.45	290	28.598	40	46.24	225	22.425	46	78.68	154
17	54.507	1	62.36	125	47.514	19	35.35	269	28.638	1	48.49	201	22.471	7	80.22	131
27	54.508	40	63.61	134	47.495	60	38.04	243	28.637	37	50.50	176	22.478	26	81.53	106
Okt. 7	54.468	75	64.95	136	47.435	97	40.47	212	28.600	67	52.26	147	22.452	55	82.59	81
17	54.393	103	66.31	132	47.338	128	42.59	177	28.533	93	53.73	116	22.397	78	83.40	55
27	54.290	123	67.63	122	47.210	152	44.36	139	28.440	113	54.89	83	22.319	96	83.95	31
Nov. 6	54.167	135	68.85	105	47.058	170	45.75	96	28.327	126	55.72	50	22.223	107	84.26	6
16	54.032	140	69.90	84	46.888	182	46.71	53	28.201	134	56.22	15	22.116	114	84.32	18
26	53.892	137	70.74	60	46.706	187	47.24	7	28.067	137	56.37	20	22.002	115	84.14	41
Dez. 6	53.755	129	71.34	33	46.519	186	47.31	40	27.930	135	56.17	54	21.887	111	83.73	62
16	53.626	115	71.67	4	46.333	179	46.91	84	27.795	127	55.63	87	21.776	104	83.11	82
26	53.511	97	71.71	24	46.154	165	46.07	126	27.668	116	54.76	116	21.672	92	82.29	99
36	53.414		71.47		45.989		44.81		27.552		53.60		21.580		81.30	
Mittl. Ort	50.475		77.94		44.531		16.80		25.587		29.24		19.322		60.99	
sec δ, tg δ	1.155		−0.577		1.345		+0.899		1.130		+0.525		1.035		+0.265	
a, a'	+3.3		+19.2		+2.8		+19.3		+2.9		+19.4		+3.0		+19.4	
b, b'	−0.04		+ 0.28		+0.06		+ 0.26		+0.03		+ 0.26		+0.02		+ 0.25	

Scheinbare Sternörter 1931

Tag	872) ϑ Gruis AR.		872) ϑ Gruis Dekl.		874) π Cephei AR.		874) π Cephei Dekl.	
1931	23h 2m		−43° 53′		23h 5m		+75° 0′	
	s		″		s		″	
Jan. 1	59.271	128	55.24	90	37.64	70	65.42	128
11	59.143	99	54.34	129	36.94	63	64.14	182
21	59.044	67	53.05	163	36.31	54	62.32	229
31	58.977	31	51.42	195	35.77	42	60.03	267
Feb. 10	58.946	7	49.47	221	35.35	28	57.36	294
20	58.953	49	47.26	244	35.07	13	54.42	308
März 2	59.002	91	44.82	262	34.94	3	51.34	310
12	59.093	136	42.20	275	34.97	18	48.24	298
22	59.229	182	39.45	283	35.15	34	45.26	275
Apr. 1	59.411	227	36.62	285	35.49	49	42.51	241
11	59.638	271	33.77	282	35.98	61	40.10	197
21	59.909	311	30.95	273	36.59	72	38.13	147
Mai 1	60.220	347	28.22	258	37.31	80	36.66	92
11	60.567	377	25.64	238	38.11	86	35.74	33
21	60.944	398	23.26	211	38.97	90	35.41	27
31	61.342	410	21.15	181	39.87	90	35.68	85
Juni 10	61.752	414	19.34	145	40.77	88	36.53	141
20	62.166	406	17.89	107	41.65	83	37.94	194
30	62.572	388	16.82	65	42.48	77	39.88	241
Juli 10	62.960	361	16.17	23	43.25	68	42.29	283
20	63.321	324	15.94	19	43.93	59	45.12	317
30	63.645	279	16.13	60	44.52	47	48.29	346
Aug. 9	63.924	228	16.73	98	44.99	35	51.75	366
19	64.152	173	17.71	131	45.34	22	55.41	379
29	64.325	114	19.02	158	45.56	10	59.20	384
Sept. 7*)	64.439	56	20.60	179	45.66	3	63.04	381
17	64.495	0	22.39	191	45.63	16	66.85	371
27	64.495	51	24.30	196	45.47	28	70.56	352
Okt. 7	64.444	96	26.26	191	45.19	39	74.08	327
17	64.348	132	28.17	177	44.80	49	77.35	294
27	64.216	161	29.94	157	44.31	58	80.29	253
Nov. 6	64.055	178	31.51	128	43.73	65	82.82	205
16	63.877	188	32.79	94	43.08	71	84.87	153
26	63.689	188	33.73	57	42.37	75	86.40	95
Dez. 6	63.501	180	34.30	16	41.62	77	87.35	34
16	63.321	165	34.46	26	40.85	76	87.69	28
26	63.156	144	34.20	67	40.09	73	87.41	90
36	63.012		33.53		39.36		86.51	
Mittl. Ort	59.876		37.26		41.85		51.53	
sec δ, tg δ	1.388		−0.962		3.867		+3.736	
a, a'	+3.4		+19.4		+1.9		+19.5	
b, b'	−0.06		+ 0.25		+0.24		+ 0.23	

Tag	873) c^2 Aquarii AR.		873) c^2 Aquarii Dekl.		875) Br 3077 AR.		875) Br 3077 Dekl.	
1931	23h 5m		−21° 32′		23h 9m		+56° 46′	
	s		″		s		″	
Jan. 1	45.501	81	62.36	5	55.154	260	84.81	140
11	45.420	62	62.31	27	54.894	231	83.41	185
21	45.358	40	62.04	51	54.663	190	81.56	223
31	45.318	14	61.53	73	54.473	141	79.33	253
Feb. 10	45.304	14	60.80	96	54.332	83	76.80	271
20	45.318	45	59.84	118	54.249	18	74.09	277
März 2	45.363	78	58.66	140	54.231	53	71.32	273
12	45.441	114	57.26	160	54.284	125	68.59	256
22	45.555	151	55.66	178	54.409	197	66.03	228
Apr. 1	45.706	188	53.88	195	54.606	267	63.75	192
11	45.894	225	51.93	207	54.873	330	61.83	147
21	46.119	259	49.86	216	55.203	386	60.36	97
Mai 1	46.378	288	47.70	221	55.589	432	59.39	43
11	46.666	312	45.49	220	56.021	465	58.96	13
21	46.978	331	43.29	214	56.486	486	59.09	68
31	47.309	341	41.15	203	56.972	494	59.77	122
Juni 10	47.650	343	39.12	188	57.466	488	60.99	172
20	47.993	337	37.24	166	57.954	469	62.71	218
30	48.330	322	35.58	142	58.423	439	64.89	258
Juli 10	48.652	299	34.16	114	58.862	399	67.47	292
20	48.951	268	33.02	83	59.261	349	70.39	319
30	49.219	233	32.19	52	59.610	293	73.58	339
Aug. 9	49.452	191	31.67	21	59.903	231	76.97	351
19	49.643	148	31.46	9	60.134	168	80.48	356
29	49.791	102	31.55	37	60.302	102	84.04	355
Sept. 7*)	49.893	57	31.92	61	60.404	39	87.59	346
17	49.950	15	32.53	80	60.443	22	91.05	330
27	49.965	22	33.33	95	60.421	80	94.35	307
Okt. 7	49.943	56	34.28	103	60.341	131	97.42	279
17	49.887	82	35.31	107	60.210	176	100.21	244
27	49.805	101	36.38	104	60.034	215	102.65	203
Nov. 6	49.704	114	37.42	96	59.819	245	104.68	157
16	49.590	121	38.38	84	59.574	268	106.25	108
26	49.469	121	39.22	69	59.306	283	107.33	56
Dez. 6	49.348	115	39.91	51	59.023	289	107.89	0
16	49.233	106	40.42	30	58.734	284	107.89	55
26	49.127	91	40.72	8	58.450	271	107.34	107
36	49.036		40.80		58.179		106.27	
Mittl. Ort	46.193		50.22		57.157		73.52	
sec δ, tg δ	1.075		−0.395		1.826		+1.527	
a, a'	+3.2		+19.5		+2.6		+19.6	
b, b'	−0.03		+ 0.23		+0.10		+ 0.22	

*) Bei Stern 874), 873) und 875) lies Sept. 8

Tag	877) γ Tucanae				879) γ Sculptoris				880) τ Pegasi			
	AR.		Dekl.		AR.		Dekl.		AR.		Dekl.	
1931	$23^h\ 13^m$		$-58°\ 36'$		$23^h\ 15^m$		$-32°\ 54'$		$23^h\ 17^m$		$+23°\ 21'$	
	s		"		s		"		s		"	
Jan. 1	24.300	229	72.26	136	5.562	105	44.82	41	12.096	106	46.98	115
11	24.071	189	70.90	183	5.457	84	44.41	73	11.990	90	45.83	135
21	23.882	143	69.07	224	5.373	59	43.68	105	11.900	70	44.48	147
31	23.739	92	66.83	260	5.314	32	42.63	134	11.830	46	43.01	153
Feb. 10	23.647	36	64.23	288	5.282	1	41.29	160	11.784	17	41.48	154
20	23.611	21	61.35	311	5.281	33	39.69	184	11.767	17	39.94	145
März 2	23.632	81	58.24	327	5.314	70	37.85	206	11.784	54	38.49	129
12	23.713	144	54.97	336	5.384	109	35.79	224	11.838	94	37.20	107
22	23.857	206	51.61	338	5.493	150	33.55	238	11.932	136	36.13	78
April 1	24.063	268	48.23	333	5.643	191	31.17	248	12.068	177	35.35	44
11	24.331	327	44.90	322	5.834	231	28.69	254	12.245	218	34.91	6
21	24.658	382	41.68	303	6.065	268	26.15	255	12.463	254	34.85	33
Mai 1	25.040	430	38.65	279	6.333	302	23.60	250	12.717	286	35.18	72
11	25.470	471	35.86	248	6.635	330	21.10	239	13.003	311	35.90	110
21	25.941	502	33.38	212	6.965	351	18.71	224	13.314	329	37.00	146
31	26.443	522	31.26	170	7.316	364	16.47	203	13.643	339	38.46	179
Juni 10	26.965	529	29.56	126	7.680	369	14.44	176	13.982	339	40.25	205
20	27.494	523	28.30	78	8.049	365	12.68	146	14.321	332	42.30	227
30	28.017	503	27.52	28	8.414	351	11.22	112	14.653	316	44.57	244
Juli 10	28.520	471	27.24	22	8.765	328	10.10	76	14.969	292	47.01	253
20	28.991	426	27.46	70	9.093	297	9.34	38	15.261	262	49.54	258
30	29.417	369	28.16	115	9.390	259	8.96	0	15.523	226	52.12	256
Aug. 9	29.786	304	29.31	157	9.649	216	8.96	36	15.749	187	54.68	250
19	30.090	230	30.88	192	9.865	168	9.32	70	15.936	145	57.18	238
29	30.320	152	32.80	220	10.033	119	10.02	100	16.081	102	59.56	222
Sept. 8	$_{10}$30.472	73	35.00	239	$_{10}$10.152	69	11.02	124	$_{11}$16.183	61	61.78	203
17	30.545	5	37.39	249	10.221	22	12.26	142	16.244	21	63.81	181
27	30.540	79	39.88	247	10.243	22	13.68	153	16.265	15	65.62	156
Okt. 7	30.461	145	42.35	236	10.221	60	15.21	156	16.250	45	67.18	130
17	30.316	201	44.71	215	10.161	92	16.77	153	16.205	72	68.48	102
27	30.115	246	46.86	184	10.069	117	18.30	141	16.133	92	69.50	72
Nov. 6	29.869	278	48.70	145	9.952	133	19.71	124	16.041	108	70.22	43
16	29.591	297	50.15	100	9.819	142	20.95	101	15.933	118	70.65	12
26	29.294	303	51.15	50	9.677	145	21.96	74	15.815	124	70.77	18
Dez. 6	28.991	297	51.65	2	9.532	141	22.70	44	15.691	123	70.59	48
16	28.694	280	51.63	55	9.391	131	23.14	11	15.568	120	70.11	76
26	28.414	252	51.08	107	9.260	117	23.25	22	15.448	112	69.35	101
36	28.162		50.01		9.143		23.03		15.336		68.34	
Mittl. Ort	24.736		51.61		6.125		29.65		13.138		44.23	
sec δ, tg δ	1.920		—1.639		1.191		—0.647		1.089		+0.432	
a, *a'*	+3.5		+19.6		+3.2		+19.7		+3.0		+19.7	
b, *b'*	—0.11		+ 0.20		—0.04		+ 0.19		+0.03		+ 0.19	

Tag	882) 4 Cassiopeiae AR.		Dekl.		884) κ Piscium AR.		Dekl.		885) 70 Pegasi AR.		Dekl.	
1931	23h 21m		+61° 53′		23h 23m		+0° 52′		23h 25m		+12° 22′	
Jan. 1	43.63 s	34	86.50″	122	22.947 s	82	34.96″	68	38.933 s	92	46.06″	92
11	43.29	31	85.28	173	22.865	70	34.28	64	38.841	78	45.14	101
21	42.98	26	83.55	215	22.795	52	33.64	58	38.763	62	44.13	104
31	42.72	21	81.40	250	22.743	31	33.06	48	38.701	40	43.09	103
Feb. 10	42.51	14	78.90	273	22.712	6	32.58	35	38.661	15	42.06	96
20	42.37	7	76.17	285	22.706	22	32.23	17	38.646	16	41.10	84
März 2	42.30	2	73.32	286	22.728	54	32.06	3	38.662	48	40.26	66
12	42.32	10	70.46	273	22.782	89	32.09	26	38.710	86	39.60	43
22	42.42	19	67.73	250	22.871	126	32.35	53	38.796	125	39.17	15
Apr. 1	42.61	27	65.23	216	22.997	164	32.88	79	38.921	163	39.02	15
11	42.88	35	63.07	175	23.161	200	33.67	106	39.084	202	39.17	46
21	43.23	41	61.32	125	23.361	234	34.73	132	39.286	237	39.63	80
Mai 1	43.64	47	60.07	72	23.595	265	36.05	155	39.523	269	40.43	112
11	44.11	51	59.35	16	23.860	291	37.60	175	39.792	295	41.55	142
21	44.62	54	59.19	40	24.151	310	39.35	192	40.087	314	42.97	168
31	45.16	55	59.59	96	24.461	321	41.27	204	40.401	325	44.65	191
Juni 10	45.71	54	60.55	149	24.782	324	43.31	210	40.726	328	46.56	208
20	46.25	53	62.04	198	25.106	321	45.41	210	41.054	324	48.64	220
30	46.78	50	64.02	241	25.427	307	47.51	206	41.378	310	50.84	227
Juli 10	47.28	45	66.43	280	25.734	287	49.57	197	41.688	289	53.11	227
20	47.73	40	69.23	311	26.021	261	51.54	182	41.977	262	55.38	224
30	48.13	34	72.34	335	26.282	228	53.36	165	42.239	229	57.62	214
Aug. 9	48.47	27	75.69	352	26.510	191	55.01	145	42.468	192	59.76	201
19	48.74	20	79.21	362	26.701	152	56.46	122	42.660	152	61.77	184
29	48.94	13	82.83	365	26.853	111	57.68	98	42.812	112	63.61	164
Sept. 8	49.07	5	86.48	359	26.964	72	58.66	73	42.924	72	65.25	142
17	[12] 49.12	2	90.07	348	[12] 27.036	34	59.39	50	[13] 42.996	34	66.67	119
27	49.10	9	93.55	328	27.070	1	59.89	28	43.030	1	67.86	96
Okt. 7	49.01	15	96.83	303	27.069	31	60.17	8	43.029	30	68.82	72
17	48.86	20	99.86	269	27.038	56	60.25	9	42.999	56	69.54	49
27	48.66	25	102.55	231	26.982	75	60.16	26	42.943	76	70.03	26
Nov. 6	48.41	29	104.86	186	26.907	89	59.90	38	42.867	91	70.29	4
16	48.12	32	106.72	136	26.818	98	59.52	48	42.776	101	70.33	17
26	47.80	34	108.08	82	26.720	102	59.04	57	42.675	107	70.16	36
Dez. 6	47.46	36	108.90	26	26.618	101	58.47	63	42.568	107	69.80	55
16	47.10	36	109.16	31	26.517	97	57.84	66	42.461	104	69.25	71
26	46.74	35	108.85	88	26.420	89	57.18	67	42.357	97	68.54	85
36	46.39		107.97		26.331		56.51		42.260		67.69	
Mittl. Ort	45.84		73.52		23.705		39.43		39.793		46.55	
sec δ, tg δ	2.123		+1.873		1.000		+0.015		1.024		+0.219	
a, *a′*	+2.7		+19.8		+3.1		+19.8		+3.0		+19.8	
b, *b′*	+0.12		+ 0.17		0.00		+ 0.16		+0.01		+ 0.15	

Tag	891) ι Andromedae AR.		891) ι Andromedae Dekl.		892) ι Piscium AR.		892) ι Piscium Dekl.		893) γ Cephei AR.		893) γ Cephei Dekl.	
1931	23h 34m		+42° 52′		23h 36m		+5° 15′		23h 36m		+77° 14′	
Jan. 1	43.478	175	78.40	116	23.282	89	4.86	76	25.76	88	66.03	81
11	43.303	160	77.24	154	23.193	78	4.10	77	24.88	82	65.22	139
21	43.143	137	75.70	184	23.115	63	3.33	74	24.06	72	63.83	192
31	43.006	107	73.86	207	23.052	43	2.59	68	23.34	60	61.91	238
Feb. 10	42.899	70	71.79	222	23.009	20	1.91	58	22.74	46	59.53	272
20	42.829	26	69.57	226	22.989	8	1.33	43	22.28	29	56.81	296
März 2	42.803	23	67.31	221	22.997	41	0.90	23	21.99	11	53.85	306
12	42.826	75	65.10	205	23.038	76	0.67	1	21.88	8	50.79	304
22	42.901	130	63.05	180	23.114	114	0.66	25	21.96	27	47.75	289
Apr. 1	43.031	185	61.25	148	23.228	152	0.91	53	22.23	44	44.86	263
11	43.216	236	59.77	108	23.380	190	1.44	81	22.67	61	42.23	227
21	43.452	284	58.69	63	23.570	227	2.25	110	23.28	75	39.96	183
Mai 1	43.736	324	58.06	16	23.797	259	3.35	137	24.03	86	38.13	131
11	44.060	357	57.90	32	24.056	286	4.72	160	24.89	96	36.82	76
21	44.417	381	58.22	81	24.342	307	6.32	181	25.85	102	36.06	18
31	44.798	394	59.03	128	24.649	320	8.13	197	26.87	104	35.88	41
Juni 10	45.192	397	60.31	170	24.969	326	10.10	208	27.91	104	36.29	98
20	45.589	390	62.01	208	25.295	323	12.18	213	28.95	102	37.27	152
30	45.979	372	64.09	242	25.618	312	14.31	213	29.97	96	38.79	203
Juli 10	46.351	346	66.51	268	25.930	294	16.44	208	30.93	88	40.82	249
20	46.697	312	69.19	289	26.224	268	18.52	198	31.81	78	43.31	289
30	47.009	272	72.08	304	26.492	238	20.50	184	32.59	66	46.20	323
Aug. 9	47.281	227	75.12	311	26.730	202	22.34	166	33.25	54	49.43	350
19	47.508	179	78.23	313	26.932	163	24.00	145	33.79	39	52.93	370
29	47.687	129	81.36	308	27.095	124	25.45	123	34.18	25	56.63	381
Sept. 8	15 47.816	81	84.44	297	16 27.219	85	26.68	100	16 34.43	11	60.44	386
17	47.897	33	87.41	280	27.304	47	27.68	76	34.54	4	64.30	382
27	47.930	11	90.21	260	27.351	12	28.44	53	34.50	19	68.12	372
Okt. 7	47.919	50	92.81	233	27.363	19	28.97	32	34.31	33	71.84	352
17	47.869	87	95.14	203	27.344	44	29.29	12	33.98	45	75.36	325
27	47.782	117	97.17	168	27.300	65	29.41	7	33.53	57	78.61	290
Nov. 6	47.665	141	98.85	129	27.235	82	29.34	23	32.96	68	81.51	248
16	47.524	160	100.14	88	27.153	92	29.11	37	32.28	77	83.99	198
26	47.364	174	101.02	43	27.061	98	28.74	50	31.51	84	85.97	144
Dez. 6	47.190	182	101.45	1	26.963	101	28.24	59	30.67	88	87.41	84
16	47.008	184	101.44	46	26.862	99	27.65	68	29.79	90	88.25	21
26	46.824	179	100.98	90	26.763	94	26.97	74	28.89	89	88.46	41
36	46.645		100.08		26.669		26.23		28.00		88.05	
Mittl. Ort	44.782		69.02		24.007		7.38		30.01		50.01	
sec δ, tg δ	1.365		+0.929		1.004		+0.092		4.530		+4.418	
a, *a′*	+2.9		+19.9		+3.1		+19.9		+2.5		+19.9	
b, *b′*	+0.06		+ 0.11		+0.01		+ 0.10		+0.29		+ 0.10	

Tag	894) ω² Aquarii AR.		894) Dekl.		895) 41 H. Cephei AR.		895) Dekl.		896) Lac. δ Sculptoris AR.		896) Dekl.	
1931	23h 39m		−14° 55′		23h 44m		+67° 25′		23h 45m		−28° 30′	
Jan. 1	8.197	93	44.87	27	33.50	46	39.33	86	19.684	113	56.54	9
11	8.104	80	45.14	8	33.04	42	38.47	141	19.571	99	56.45	40
21	8.024	64	45.22	13	32.62	38	37.06	191	19.472	81	56.05	72
31	7.960	43	45.09	33	32.24	32	35.15	232	19.391	59	55.33	102
Feb. 10	7.917	20	44.76	56	31.92	24	32.83	263	19.332	33	54.31	130
20	7.897	8	44.20	78	31.68	15	30.20	284	19.299	2	53.01	156
März 2	7.905	40	43.42	102	31.53	5	27.36	292	19.297	32	51.45	181
12	7.945	75	42.40	124	31.48	6	24.44	287	19.329	69	49.64	203
22	8.020	112	41.16	146	31.54	16	21.57	271	19.398	110	47.61	222
Apr. 1	8.132	151	39.70	167	31.70	27	18.86	245	19.508	151	45.39	237
11	8.283	189	38.03	186	31.97	37	16.41	208	19.659	192	43.02	248
21	8.472	226	36.17	201	32.34	45	14.33	163	19.851	232	40.54	255
Mai 1	8.698	259	34.16	212	32.79	52	12.70	113	20.083	269	37.99	255
11	8.957	288	32.04	219	33.31	59	11.57	58	20.352	301	35.44	251
21	9.245	310	29.85	221	33.90	63	10.99	2	20.653	325	32.93	241
31	9.555	325	27.64	217	34.53	65	10.97	55	20.978	344	30.52	225
Juni 10	9.880	333	25.47	209	35.18	65	11.52	109	21.322	354	28.27	203
20	10.213	332	23.38	194	35.83	64	12.61	162	21.676	355	26.24	177
30	10.545	322	21.44	175	36.47	61	14.23	210	22.031	347	24.47	146
Juli 10	10.867	305	19.69	153	37.08	57	16.33	253	22.378	330	23.01	113
20	11.172	280	18.16	126	37.65	51	18.86	290	22.708	305	21.88	75
30	11.452	249	16.90	97	38.16	44	21.76	320	23.013	273	21.13	38
Aug. 9	11.701	213	15.93	67	38.60	37	24.96	343	23.286	235	20.75	1
19	11.914	174	15.26	36	38.97	29	28.39	361	23.521	192	20.74	36
29	12.088	132	14.90	7	39.26	20	32.00	370	23.713	147	21.10	69
Sept. 8	12.220	90	14.83	20	39.46	11	35.70	371	23.860	100	21.79	97
17*)	[16] 12.310	50	15.03	44	[18] 39.57	3	39.41	365	[18] 23.960	56	22.76	121
27	12.360	12	15.47	64	39.60	6	43.06	352	24.016	14	23.97	138
Okt. 7	12.372	21	16.11	79	39.54	13	46.58	332	24.030	25	25.35	148
17	12.351	48	16.90	88	39.41	21	49.90	304	24.005	58	26.83	150
27	12.303	72	17.78	94	39.20	27	52.94	269	23.947	85	28.33	147
Nov. 6	12.231	88	18.72	93	38.93	33	55.63	227	23.862	105	29.80	134
16	12.143	100	19.65	89	38.60	38	57.90	179	23.757	119	31.14	118
26	12.043	106	20.54	80	38.22	42	59.69	126	23.638	128	32.32	95
Dez. 6	11.937	108	21.34	68	37.80	45	60.95	70	23.510	130	33.27	69
16	11.829	105	22.02	54	37.35	47	61.65	10	23.380	128	33.96	40
26	11.724	98	22.56	37	36.88	46	61.75	50	23.252	120	34.36	10
36	11.626		22.93		36.42		61.25		23.132		34.46	
Mittl. Ort	8.729		35.60		35.90		24.13		20.064		43.21	
sec δ, tg δ	1.035		−0.267		2.605		+2.405		1.138		−0.544	
a, a'	+3.1		+20.0		+2.9		+20.0		+3.1		+20.0	
b, b'	−0.02		+ 0.09		+0.16		+ 0.07		−0.04		+ 0.06	

*) Bei Stern 895) und 896) lies Sept. 18

Tag	898) φ Pegasi AR.		898) φ Pegasi Dekl.		902) ω Piscium AR.		902) ω Piscium Dekl.		903) ε Tucanae AR.		903) ε Tucanae Dekl.	
1931	$23^h\ 48^m$		+18° 44′		$23^h\ 55^m$		+6° 28′		$23^h\ 56^m$		−65° 57′	
Jan. 1	57.681	108	15.57	91	45.373	97	51.26	73	20.81	38	61.18	113
11	57.573	98	14.66	106	45.276	89	50.53	76	20.43	35	60.05	167
21	57.475	85	13.60	117	45.187	76	49.77	74	20.08	30	58.38	216
31	57.390	66	12.43	122	45.111	60	49.03	69	19.78	24	56.22	259
Feb. 10	57.324	41	11.21	120	45.051	37	48.34	59	19.54	18	53.63	296
20	57.283	12	10.01	114	45.014	11	47.75	46	19.36	11	50.67	326
März 2	57.271	23	8.87	100	45.003	20	47.29	28	19.25	3	47.41	347
12	57.294	61	7.87	80	45.023	55	47.01	7	19.22	5	43.94	362
22	57.355	102	7.07	54	45.078	94	46.94	18	19.27	13	40.32	369
Apr. 1	57.457	144	6.53	25	45.172	134	47.12	45	19.40	21	36.63	368
11	57.601	186	6.28	8	45.306	173	47.57	74	19.61	29	32.95	359
21	57.787	225	6.36	42	45.479	212	48.31	102	19.90	37	29.36	343
Mai 1	58.012	261	6.78	78	45.691	246	49.33	129	20.27	44	25.93	320
11	58.273	290	7.56	111	45.937	277	50.62	154	20.71	50	22.73	289
21	58.563	313	8.67	144	46.214	300	52.16	176	21.21	56	19.84	253
31	58.876	329	10.11	171	46.514	316	53.92	193	21.77	60	17.31	210
Juni 10	59.205	335	11.82	195	46.830	325	55.85	205	22.37	62	15.21	162
20	59.540	334	13.77	213	47.155	326	57.90	213	22.99	63	13.59	112
30	59.874	323	15.90	227	47.481	317	60.03	214	23.62	63	12.47	58
Juli 10	60.197	306	18.17	235	47.798	302	62.17	211	24.25	60	11.89	4
20	60.503	280	20.52	237	48.100	280	64.28	202	24.85	56	11.85	50
30	60.783	250	22.89	234	48.380	250	66.30	190	25.41	51	12.35	103
Aug. 9	61.033	215	25.23	225	48.630	218	68.20	173	25.92	44	13.38	151
19	61.248	176	27.48	214	48.848	181	69.93	153	26.36	35	14.89	194
29	61.424	136	29.62	197	49.029	142	71.46	131	26.71	27	16.83	230
Sept. 8	61.560	96	31.59	179	49.171	104	72.77	108	26.98	17	19.13	257
18	61.656	58	33.38	157	[21] 49.275	66	73.85	85	[21] 27.15	7	21.70	273
27	[19] 61.714	23	34.95	135	49.341	31	74.70	62	27.22	3	24.43	280
Okt. 7	61.737	10	36.30	111	49.372	0	75.32	40	27.19	12	27.23	275
17	61.727	37	37.41	85	49.372	28	75.72	20	27.07	20	29.98	257
27	61.690	61	38.26	61	49.344	50	75.92	0	26.87	28	32.55	230
Nov. 6	61.629	80	38.87	36	49.294	69	75.92	16	26.59	34	34.85	192
16	61.549	95	39.23	11	49.225	83	75.76	31	26.25	39	36.77	147
26	61.454	104	39.34	14	49.142	92	75.45	44	25.86	41	38.24	95
Dez. 6	61.350	110	39.20	38	49.050	98	75.01	54	25.45	42	39.19	39
16	61.240	112	38.82	60	48.952	101	74.47	64	25.03	42	39.58	20
26	61.128	110	38.22	80	48.851	98	73.83	70	24.61	40	39.38	78
36	61.018		37.42		48.753		73.13		24.21		38.60	
Mittl. Ort	58.481		12.98		45.999		52.64		20.52		40.08	
sec δ, tg δ	1.056		+0.339		1.007		+0.114		2.455		−2.242	
a, a'	+3.1		+20.0		+3.1		+20.0		+3.1		+20.0	
b, b'	+0.02		+ 0.05		+0.01		+ 0.02		−0.15		+ 0.02	

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^m.52$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$0^h 58^m$	+85° 53′	in $0^s.01$ $0''.01$	$0^h 58^m$	+85° 53′	in $0^s.01$ $0''.01$	$0^h 58^m$	+85° 53′	in $0^s.01$ $0''.01$	$0^h 58^m$	+85° 53′	in $0^s.01$ $0''.01$
1	^{s}51.71	$''$37.06	+2 −12	^{s}42.70	$''$36.67	+9 +4	^{s}36.25	$''$31.45	+7 +6	^{s}33.40	$''$22.56	−9 +5
2	51.42	37.15	+7 −9	42.43	36.55	+6 +8	36.08	31.20	+3 +9	33.40	22.25	−11 +1
3	51.13	37.23	+10 −4	42.16	36.43	+1 +10	35.91	30.94	−2 +9	33.40	21.95	−10 −3
4	50.84	37.30	+10 +1	41.89	36.31	−3 +10	35.75	30.68	−7 +8	33.41	21.64	−6 −6
5	50.54	37.36	+8 +6	41.62	36.18	−8 +7	35.59	30.42	−10 +4	33.43	21.34	−2 −7
6	50.25	37.42	+5 +10	41.36	36.04	−10 +3	35.44	30.15	−10 0	33.45	21.04	+3 −6
7	49.96	37.47	−1 +11	41.10	35.90	−10 −1	35.29	29.89	−8 −4	*)33.48	20.74	+8 −4
8	49.66	37.52	−5 +9	40.84	35.75	−7 −5	35.15	29.62	−4 −6	33.51	20.43	+11 0
9	49.37	37.56	−9 +6	40.59	35.59	−3 −7	35.02	29.35	+1 −7	33.55	20.13	+12 +4
10	49.07	37.59	−10 +1	40.34	35.43	+2 −7	34.89	29.07	+6 −5	33.59	19.83	+10 +8
11	48.77	37.62	−9 −3	40.09	35.27	+7 −5	34.76	28.79	+9 −2	33.64	19.53	+7 +10
12	48.48	37.64	−5 −6	39.84	35.10	+10 −1	34.64	28.51	+11 +1	33.69	19.23	+3 +11
13	48.18	37.65	−1 −7	39.60	34.92	+11 +3	34.53	28.23	+11 +5	33.75	18.94	−1 +10
14	47.89	37.66	+4 −6	39.36	34.74	+10 +6	34.42	27.94	+9 +8	33.82	18.65	−5 +7
15	47.59	37.66	+8 −4	39.12	34.55	+8 +9	34.32	27.65	+6 +10	33.89	18.36	−9 +4
16	47.30	37.65	+10 0	38.89	34.36	+4 +10	34.22	27.36	+1 +10	33.97	18.07	−10 0
17	47.00	37.64	+11 +3	38.66	34.16	−1 +9	34.12	27.07	−3 +8	34.05	17.78	−10 −5
18	46.71	37.62	+9 +7	38.44	33.96	−5 +7	34.03	26.78	−7 +6	34.14	17.49	−8 −8
19	46.41	37.59	+6 +9	38.22	33.75	−8 +4	33.95	26.49	−9 +2	34.24	17.21	−5 −11
20	46.12	37.56	+2 +9	38.00	33.54	−10 0	33.87	26.19	−10 −2	34.34	16.93	0 −12
21	45.83	37.52	−2 +8	37.79	33.33	−10 −5	33.80	25.89	−10 −7	34.45	16.65	+4 −11
22	45.54	37.48	−6 +6	37.58	33.11	−9 −8	33.73	25.59	−7 −10	34.56	16.37	+8 −7
23	45.25	37.43	−9 +2	37.38	32.88	−6 −12	33.67	25.29	−3 −12	34.67	16.10	+10 −3
24	44.96	37.37	−11 −2	37.18	32.65	−2 −13	33.62	24.98	+1 −12	34.79	15.83	+9 +2
25	44.68	37.30	−11 −6	36.99	32.42	+3 −12	33.57	24.68	+6 −10	34.92	15.56	+6 +6
26	44.39	37.23	−8 −10	36.80	32.19	+7 −9	33.53	24.38	+9 −6	35.05	15.29	+2 +8
27	44.11	37.15	−5 −12	36.61	31.95	+9 −4	33.50	24.08	+10 −1	35.19	15.03	−3 +8
28	43.82	37.07	0 −13	36.43	31.70	+9 +1	33.47	23.77	+8 +4	35.33	14.77	−8 +6
29	43.54	36.98	+5 −11	36.25	31.45	+7 +6	33.44	23.47	+5 +7	35.48	14.51	−11 +2
30	43.26	36.88	+8 −7				33.42	23.16	0 +9	35.63	14.26	−11 −2
31	42.98	36.78	+10 −2				33.41	22.86	−5 +8	35.79	14.01	−8 −6
32	42.70	36.67	+9 +4				33.40	22.56	−9 +5			

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 53′ 10″	13.939	+13.903	+85° 53′ 30″	13.958	+13.922
20	13.949	+13.913	40	13.968	+13.932

$\alpha_{1931.0} = 0^h\ 58^m\ 58^s.05$ $\delta_{1931.0} = +85°\ 53'\ 16''.80$

*) Tag der doppelten unteren Kulmination: April 7

Na) 43 Hev. Cephei $4^m.52$

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$0^h 58^m$	$+85° 53'$	in $0^s.01$ $0''.01$	$0^h 58^m$	$+85° 53'$	in $0^s.01$ $0''.01$	$0^h 58^m$	$+85° 53'$	in $0^s.01$ $0''.01$	$0^h 59^m$	$+85° 53'$	in $0^s.01$ $0''.01$
1	35.79	14.01	− 8 − 6	42.68	8.29	+ 8 − 4	51.65	7.43	+10 + 6	1.00	11.66	− 4 + 9
2	35.95	13.76	− 4 − 8	42.95	8.18	+11 0	51.97	7.49	+ 7 + 9	1.28	11.88	− 7 + 6
3	36.12	13.52	+ 1 − 8	43.23	8.08	+11 + 4	52.28	7.55	+ 4 +10	1.55	12.10	− 9 + 2
4	36.29	13.28	+ 6 − 6	43.51	7.98	+ 9 + 8	52.59	7.62	− 1 +10	1.83	12.33	−10 − 3
5	36.46	13.04	+10 − 2	43.79	7.89	+ 6 +10	52.91	7.69	− 5 + 8	2.10	12.56	− 9 − 7
6	36.64	12.81	+11 + 2	44.08	7.80	+ 2 +11	53.22	7.77	− 8 + 4	2.37	12.79	− 7 −10
7	36.82	12.58	+11 + 6	44.36	7.72	− 3 + 9	53.53	7.86	−10 0	2.64	13.03	− 3 −12
8	37.01	12.36	+ 8 + 9	44.65	7.65	− 6 + 7	53.84	7.95	−10 − 4	2.91	13.27	+ 2 −12
9	37.20	12.14	+ 5 +11	44.94	7.58	− 9 + 3	54.15	8.04	− 8 − 8	3.17	13.52	+ 6 −10
10	37.40	11.92	0 +10	45.23	7.52	−10 − 1	54.46	8.14	− 5 −11	3.43	13.77	+ 9 − 6
11	37.60	11.71	− 4 + 8	45.53	7.46	−10 − 6	54.77	8.24	− 1 −12	3.69	14.02	+10 − 1
12	37.81	11.50	− 8 + 5	45.83	7.41	− 7 − 9	55.08	8.35	+ 4 −11	3.94	14.28	+ 8 + 4
13	38.02	11.29	−10 + 1	46.12	7.36	− 4 −11	55.39	8.47	+ 8 − 8	4.19	14.55	+ 5 + 8
14	38.23	11.09	−10 − 3	46.42	7.32	+ 1 −11	55.69	8.59	+10 − 3	4.44	14.82	0 + 9
15	38.45	10.89	− 9 − 7	46.72	7.28	+ 5 −10	56.00	8.72	+10 + 2	4.69	15.09	− 5 + 9
16	38.67	10.70	− 6 −10	47.02	7.25	+ 9 − 6	56.30	8.85	+ 7 + 6	4.93	15.36	− 9 + 6
17	38.89	10.51	− 2 −11	47.32	7.22	+10 − 1	56.61	8.99	+ 3 + 9	5.17	15.64	−10 + 2
18	39.12	10.33	+ 3 −11	47.62	7.20	+ 9 + 4	56.91	9.13	− 2 +10	5.41	15.93	−10 − 3
19	39.35	10.15	+ 7 − 8	47.93	7.18	+ 6 + 8	57.21	9.28	− 6 + 8	5.65	16.22	− 7 − 6
20	39.59	9.98	+ 9 − 4	48.24	7.17	+ 1 + 9	57.51	9.43	−10 + 4	5.88	16.51	− 2 − 8
21	39.83	9.81	+10 + 1	48.55	7.16	− 4 + 9	57.81	9.59	−11 − 1	6.11	16.80	+ 4 − 7
22	40.07	9.65	+ 8 + 5	48.86	7.16	− 8 + 6	58.11	9.75	− 9 − 5	6.34	17.10	+ 8 − 4
23	40.31	9.49	+ 4 + 8	49.17	7.17	−11 + 2	58.40	9.92	− 5 − 7	6.56	17.40	+11 0
24	40.56	9.34	− 1 + 9	49.48	7.18	−10 − 3	58.69	10.10	0 − 8	6.78	17.70	+12 + 4
25	40.81	9.19	− 6 + 7	49.79	7.20	− 8 − 6	58.99	10.28	+ 5 − 6	7.00	18.01	+10 + 8
26	41.07	9.04	−10 + 4	50.10	7.22	− 3 − 8	59.28	10.46	+ 9 − 3	7.21	18.32	+ 7 +10
27	41.33	8.90	−11 0	50.41	7.25	+ 2 − 8	59.57	10.65	+11 + 1	7.42	18.63	+ 3 +11
28	41.59	8.77	−10 − 5	50.72	7.29	+ 7 − 6	59.86	10.84	+11 + 5	7.62	18.95	− 2 +10
29	41.86	8.64	− 6 − 8	51.03	7.33	+10 − 2	60.15	11.04	+ 9 + 8	7.82	19.27	− 6 + 7
30	42.13	8.52	− 1 − 9	51.34	7.38	+11 + 2	60.44	11.24	+ 5 +10	8.02	19.59	− 9 + 3
31	42.40	8.40	+ 4 − 7	51.65	7.43	+10 + 6	60.72	11.45	+ 1 +10	8.22	19.92	−10 − 1
32	42.68	8.29	+ 8 − 4				61.00	11.66	− 4 + 9	8.41	20.25	−10 − 5

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 53′ 0″	13.930	+13.894	+85° 53′ 20″	13.949	+13.913
10	13.939	+13.903	30	13.958	+13.922

$\alpha_{1931.0} = 0^h\ 58^m\ 58^s.05$ $\delta_{1931.0} = +85°\ 53'\ 16''.80$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Na) 43 Hev. Cephei $4^m.52$

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	$0^h 59^m$	$+85° 53'$	in 0.01^s $0.01''$	$0^h 59^m$	$+85° 53'$	in 0.01^s $0.01''$	$0^h 59^m$	$+85° 53'$	in 0.01^s $0.01''$	$0^h 59^m$	$+85° 53'$	in 0.01^s $0.01''$
1	8.41	20.25	−10 − 5	12.37	31.17	− 1 −12	12.23	43.43	+ 9 + 2	7.89	53.08	− 2 + 8
2	8.60	20.58	− 8 − 9	12.44	31.56	+ 3 −11	12.15	43.79	+ 5 + 6	7.68	53.34	− 7 + 6
3	8.79	20.92	− 4 −12	12.50	31.94	+ 7 − 9	12.06	44.15	+ 1 + 8	7.47	53.60	−10 + 2
4	8.97	21.26	0 −12	12.56	32.33	+ 9 − 5	11.97	44.51	− 5 + 7	7.26	53.85	−11 − 2
5	9.15	21.60	+ 4 −11	12.61	32.72	+ 9 0	11.88	44.87	− 9 + 5	7.04	54.10	−10 − 6
6	9.32	21.94	+ 7 − 8	12.66	33.10	+ 7 + 4	11.78	45.22	−11 + 1	6.82	54.34	− 6 − 9
7	9.49	22.29	+ 9 − 3	{12.70 12.74	33.49 33.88	+ 3 + 7} − 2 + 8}	11.68	45.57	−11 − 4	6.60	54.58	0 − 9
8	9.66	22.64	+ 9 + 2	12.77	34.27	− 6 + 7	11.57	45.92	− 8 − 7	6.37	54.81	+ 5 − 7
9	9.82	22.99	+ 6 + 5	12.80	34.66	−10 + 4	11.46	46.27	− 3 − 9	6.14	55.04	+ 9 − 4
10	9.98	23.34	+ 2 + 8	12.83	35.05	−11 − 1	11.34	46.62	+ 2 − 8	5.90	55.26	+11 + 1
11	10.14	23.70	− 3 + 8	12.85	35.44	−10 − 5	11.22	46.96	+ 7 − 5	5.66	55.48	+11 + 6
12	10.29	24.06	− 8 + 6	12.87	35.83	− 6 − 7	11.09	47.30	+11 − 1	5.42	55.69	+ 9 +10
13	10.44	24.42	−11 + 3	12.88	36.22	− 1 − 8	10.96	47.64	+12 + 3	5.18	55.89	+ 5 +12
14	10.58	24.78	−11 − 2	12.89	36.60	+ 5 − 7	10.83	47.97	+11 + 8	4.93	56.09	0 +12
15	10.72	25.14	− 9 − 5	12.89	36.99	+ 9 − 3	10.69	48.30	+ 8 +11	4.68	56.29	− 4 + 9
16	10.85	25.50	− 4 − 7	12.89	37.38	+11 + 1	10.55	48.63	+ 3 +12	4.43	56.48	− 7 + 6
17	10.98	25.87	+ 1 − 7	12.88	37.77	+12 + 6	10.40	48.95	− 1 +11	4.18	56.66	− 9 + 2
18	11.11	26.24	+ 7 − 5	12.87	38.15	+10 + 9	10.25	49.27	− 5 + 9	3.92	56.84	−10 − 2
19	11.23	26.61	+10 − 1	12.85	38.54	+ 6 +12	10.09	49.59	− 8 + 5	3.66	57.01	− 8 − 6
20	11.35	26.99	+12 + 3	12.83	38.92	+ 2 +12	9.93	49.90	−10 + 1	3.40	57.18	− 5 − 9
21	11.46	27.36	+11 + 7	12.81	39.30	− 3 +10	9.76	50.21	− 9 − 4	3.13	57.34	− 2 −11
22	11.57	27.74	+ 8 +10	12.78	39.69	− 7 + 7	9.59	50.52	− 7 − 7	2.86	57.49	+ 3 −10
23	11.68	28.11	+ 4 +12	12.75	40.07	− 9 + 3	9.42	50.82	− 4 −10	2.59	57.64	+ 6 − 8
24	11.78	28.49	0 +11	12.71	40.45	−10 − 1	9.24	51.12	0 −11	2.32	57.78	+ 9 − 5
25	11.88	28.87	− 4 + 9	12.67	40.83	− 9 − 5	9.06	51.41	+ 4 −10	2.04	57.92	+10 0
26	11.97	29.25	− 8 + 5	12.62	41.20	− 6 − 9	8.87	51.70	+ 8 − 7	1.76	58.05	+ 8 + 4
27	12.06	29.63	−10 + 1	12.57	41.58	− 3 −11	8.68	51.98	+ 9 − 3	1.48	58.17	+ 5 + 8
28	12.14	30.01	−10 − 3	12.51	41.95	+ 1 −11	8.49	52.26	+ 9 + 1	1.20	58.29	0 + 9
29	12.22	30.40	− 8 − 7	12.45	42.32	+ 5 −10	8.29	52.54	+ 7 + 5	0.92	58.40	− 5 + 8
30	12.30	30.78	− 5 −10	12.38	42.69	+ 8 − 6	8.09	52.81	+ 3 + 8	0.64	58.50	− 9 + 5
31	12.37	31.17	− 1 −12	12.31	43.06	+10 − 2	7.89	53.08	− 2 + 8	0.36	58.60	−11 0
32				12.23	43.43	+ 9 + 2				0.07	58.69	−11 − 4

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 53′ 20″	13.949	+13.913	+85° 53′ 40″	13.968	+13.932	+85° 53′ 50″	13.977	+13.941
30	13.958	+13.922	50	13.977	+13.941	60	13.986	+13.951

$\alpha_{1931.0} = 0^h\ 58^m\ 58^s.05 \qquad \delta_{1931.0} = +85°\ 53'\ 16''.80$

Nb) α Ursae minoris $2^m.12$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$1^h 36^m$	+88° 56′	in 0.01^s | $0.01''$	$1^h 36^m$	+88° 56′	in 0.01^s | $0.01''$	$1^h 35^m$	+88° 56′	in 0.01^s | $0.01''$	$1^h 35^m$	+88° 56′	in 0.01^s | $0.01''$
	s	″		s	″		s	″		s	″	
1	74.18	22.12	+ 6 −12	38.79	23.58	+34 + 2	70.51	19.72	+27 + 5	53.81	11.47	−32 + 7
2	73.10	22.26	+23 −10	37.66	23.52	+24 + 7	69.69	19.50	+12 + 8	53.61	11.17	−39 + 3
3	72.01	22.40	+35 − 6	36.53	23.46	+ 7 +10	68.88	19.28	− 6 +10	53.43	10.86	−36 − 2
4	70.91	22.53	+38 0	35.41	23.39	−12 +10	68.09	19.06	−24 + 9	53.27	10.56	−24 − 5
5	69.81	22.66	+32 + 5	34.29	23.31	−28 + 9	67.32	18.83	−35 + 6	53.13	10.26	− 7 − 7
6	68.70	22.78	+18 + 9	33.19	23.23	−36 + 5	66.56	18.60	−38 + 2	53.01	9.96	+12 − 7
7	67.58	22.89	− 1 +11	32.09	23.14	−36 0	65.82	18.36	−31 − 2	52.92	9.65	+29 − 5
8	66.46	23.00	−19 +10	30.99	23.05	−27 − 4	65.11	18.12	−17 − 6	52.85	9.35	+40 − 2
9	65.33	23.10	−32 + 7	29.91	22.95	−11 − 6	64.41	17.88	+ 1 − 7	52.80	9.04	+43 + 2
10	64.20	23.19	−37 + 3	28.83	22.84	+ 8 − 7	63.72	17.63	+20 − 7	52.77	8.74	+39 + 6
11	63.06	23.28	−33 − 2	27.76	22.73	+25 − 6	63.06	17.38	+35 − 4	52.76	8.44	+28 + 9
12	61.92	23.36	−21 − 5	26.70	22.61	+37 − 3	62.41	17.13	+43 0	52.78	8.13	+13 +10
13	60.77	23.43	− 4 − 7	25.65	22.48	+42 + 1	61.79	16.87	+42 + 3	52.82	7.83	− 4 +10
14	59.62	23.50	+14 − 7	24.61	22.35	+39 + 4	61.18	16.61	+35 + 7	52.88	7.52	−19 + 8
15	58.47	23.56	+30 − 5	23.58	22.21	+29 + 7	60.60	16.34	+23 + 9	52.96	7.22	−31 + 5
16	57.31	23.61	+39 − 2	22.56	22.07	+16 + 9	60.03	16.07	+ 7 +10	*)53.06	6.92	−37 + 1
17	56.15	23.66	+40 + 2	21.55	21.92	− 1 +10	59.48	15.80	− 9 + 9	53.19	6.62	−38 − 3
18	54.99	23.70	+35 + 5	20.55	21.76	−16 + 8	58.96	15.52	−24 + 7	53.34	6.32	−31 − 7
19	53.83	23.74	+23 + 8	19.57	21.60	−30 + 6	58.45	15.25	−35 + 4	53.51	6.02	−19 −11
20	52.66	23.77	+ 9 + 9	18.60	21.44	−38 + 2	57.97	14.97	−39 − 1	53.70	5.72	− 3 −12
21	51.50	23.79	− 7 + 9	17.64	21.27	−40 − 3	57.50	14.69	−37 − 5	53.91	5.42	+14 −11
22	50.33	23.80	−22 + 7	16.70	21.09	−35 − 7	57.06	14.41	−28 − 9	54.15	5.13	+27 − 9
23	49.17	23.81	−34 + 4	15.77	20.91	−24 −11	56.63	14.12	−14 −12	54.40	4.83	+35 − 5
24	48.00	23.81	−40 0	14.86	20.72	− 8 −13	56.23	13.83	+ 3 −12	54.68	4.54	+34 0
25	46.84	23.81	−40 − 5	13.96	20.53	+ 9 −12	55.86	13.54	+19 −11	54.98	4.25	+25 + 5
26	45.68	23.80	−32 − 9	13.07	20.33	+24 −10	55.50	13.25	+31 − 8	55.30	3.96	+ 8 + 8
27	44.52	23.78	−19 −12	12.20	20.13	+34 − 6	55.16	12.96	+35 − 3	55.64	3.68	−11 + 9
28	43.37	23.75	− 1 −13	11.35	19.93	+35 0	54.85	12.66	+30 + 2	55.99	3.39	−28 + 7
29	42.22	23.72	+16 −11	10.51	19.72	+27 + 5	54.56	12.37	+18 + 6	56.37	3.11	−39 + 4
30	41.07	23.68	+30 − 8				54.29	12.07	0 + 9	56.77	2.83	−40 0
31	39.93	23.63	+37 − 3				54.04	11.77	−18 + 9	57.19	2.55	−32 − 4
32	38.79	23.58	+34 + 2				53.81	11.47	−32 + 7			

δ	sec δ	tg δ	δ	sec δ	tg δ
+88° 56′ 0″	53.718	+53.709	+88° 56′ 20″	53.999	+53.990
10	53.858	+53.849	30	54.141	+54.132

$\alpha_{1931.0} = 1^h\ 37^m\ 25^s.31$ $\delta_{1931.0} = +88°\ 56'\ 0''.92$

*) Tag der doppelten unteren Kulmination: April 16

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nb) α Ursae minoris $2^m.12$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$1^h 35^m$	+88° 55′	in $0^s.01$	in 0″.01	$1^h 36^m$	+88° 55′	in $0^s.01$	in 0″.01	$1^h 36^m$	+88° 55′	in $0^s.01$	in 0″.01	$1^h 37^m$	+88° 55′	in $0^s.01$	in 0″.01
1	57.19	62.55	−32	−4	19.01	55.56	+31	−6	51.47	52.96	+39	+5	28.36	55.34	−12	+9
2	57.63	62.28	−16	−7	19.96	55.40	+40	−2	52.65	52.96	+29	+8	29.52	55.50	−26	+7
3	58.09	62.00	+3	−8	20.91	55.24	+42	+3	53.83	52.96	+15	+10	30.67	55.67	−35	+3
4	58.57	61.73	+22	−7	21.88	55.09	+36	+6	55.02	52.97	−2	+10	31.81	55.84	−39	−1
5	59.07	61.46	+36	−4	22.86	54.94	+24	+9	56.21	52.98	−18	+9	32.95	56.02	−36	−5
6	59.59	61.19	+43	0	23.85	54.80	+8	+10	57.40	53.00	−30	+6	34.08	56.20	−27	−9
7	60.12	60.93	+41	+4	24.86	54.66	−8	+10	58.60	53.02	−37	+1	35.21	56.38	−12	−12
8	60.68	60.67	+33	+8	25.87	54.53	−22	+8	59.79	53.05	−38	−3	36.33	56.57	+4	−12
9	61.25	60.41	+19	+10	26.90	54.41	−33	+4	60.99	53.09	−32	−7	37.44	56.76	+20	−11
10	61.84	60.16	+2	+11	27.93	54.29	−38	0	62.19	53.13	−21	−10	38.55	56.96	+31	−7
11	62.45	59.91	−13	+9	28.98	54.17	−37	−4	63.39	53.17	−5	−12	39.65	57.16	+35	−2
12	63.08	59.66	−27	+7	30.03	54.06	−28	−8	64.60	53.22	+11	−12	40.74	57.37	+31	+3
13	63.72	59.42	−36	+3	31.10	53.96	−15	−11	65.80	53.28	+26	−9	41.83	57.58	+19	+7
14	64.39	59.18	−38	−1	32.17	53.86	+2	−12	67.00	53.34	+35	−5	42.91	57.80	+2	+9
15	65.07	58.95	−34	−6	33.25	53.76	+18	−11	68.20	53.41	+36	0	43.98	58.02	−17	+10
16	65.77	58.72	−24	−9	34.34	53.67	+31	−8	69.40	53.48	+29	+5	45.04	58.25	−32	+7
17	66.48	58.49	−9	−11	35.43	53.59	+37	−3	70.60	53.56	+14	+9	46.09	58.48	−39	+3
18	67.21	58.27	+8	−12	36.54	53.51	+34	+2	71.80	53.64	−5	+10	47.14	58.71	−36	−1
19	67.96	58.05	+24	−10	37.65	53.44	+23	+7	73.00	53.73	−23	+9	48.18	58.95	−25	−5
20	68.72	57.83	+34	−6	38.77	53.37	+6	+9	74.20	53.82	−35	+6	49.20	59.19	−7	−7
21	69.50	57.62	+37	−1	39.90	53.31	−13	+10	75.40	53.92	−39	+1	50.22	59.44	+12	−8
22	70.29	57.41	+30	+4	41.03	53.25	−29	+8	76.59	54.02	−33	−3	51.24	59.69	+30	−6
23	71.10	57.20	+16	+7	42.17	53.20	−39	+4	77.78	54.13	−19	−7	52.24	59.94	+41	−2
24	71.92	57.00	−3	+9	43.31	53.15	−39	−1	78.97	54.25	0	−8	53.23	60.20	+44	+2
25	72.76	56.80	−21	+9	44.46	53.11	−30	−5	80.16	54.37	+18	−7	54.21	60.46	+39	+6
26	73.61	56.61	−35	+6	45.61	53.07	−13	−8	81.34	54.49	+34	−5	55.19	60.73	+27	+9
27	74.48	56.42	−41	+1	46.77	53.04	+6	−9	82.52	54.62	+42	−1	56.15	61.00	+11	+11
28	75.36	56.24	−36	−3	47.94	53.01	+25	−7	83.70	54.76	+41	+4	57.10	61.28	−6	+10
29	76.25	56.06	−24	−7	49.11	52.99	+37	−4	84.87	54.90	+34	+7	58.04	61.56	−21	+8
30	77.16	55.89	−5	−8	50.29	52.97	+42	+1	86.04	55.04	+21	+10	58.96	61.84	−32	+5
31	78.08	55.72	+15	−8	51.47	52.96	+39	+5	87.20	55.19	+4	+10	59.88	62.13	−37	+1
32	79.01	55.56	+31	−6					88.36	55.34	−12	+9	60.78	62.42	−37	−4

δ	sec δ	tg δ	δ	sec δ	tg δ
+88° 55′ 50″	53.578	+53.569	+88° 55′ 60″	53.718	+53.709
60	53.718	+53.709	70	53.858	+53.849

$\alpha_{1931.0} = 1^h\ 37^m\ 25^s.31$ $\delta_{1931.0} = +88°\ 56'\ 0''.92$

Nb) α Ursae minoris 2m.12

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$1^h 38^m$	+88° 56′	in 0.01^s $0.01''$	$1^h 38^m$	+88° 56′	in 0.01^s $0.01''$	$1^h 38^m$	+88° 56′	in 0.01^s $0.01''$	$1^h 37^m$	+88° 56′	in 0.01^s $0.01''$
1	0.78^s	$2.42''$	−37 − 4	21.85^s	$12.49''$	− 8 −12	28.23^s	$24.75''$	+31 + 1	76.90^s	$35.30''$	− 8 + 9
2	1.68	2.71	−29 − 8	22.32	12.86	+ 8 −12	28.12	25.13	+20 + 5	76.24	35.61	−26 + 8
3	2.56	3.00	−17 −11	22.77	13.23	+23 −10	28.00	25.51	+ 3 + 8	75.56	35.91	−38 + 4
4	3.44	3.30	− 2 −12	23.21	13.61	+32 − 7	27.85	25.89	−16 + 8	74.87	36.21	−43 0
5	4.30	3.60	+14 −12	23.63	13.98	+34 − 2	27.69	26.27	−32 + 6	74.16	36.50	−37 − 5
6	5.14	3.91	+27 − 9	24.03	14.36	+27 + 3	27.51	26.65	−41 + 2	73.43	36.79	−22 − 8
7	5.98	4.22	+33 − 5	24.42	14.74	+13 + 6	27.31	27.02	−41 − 2	72.69	37.07	− 2 − 9
8	6.80	4.54	+32 0	24.79	15.12	− 4 + 8	27.10	27.39	−31 − 6	71.93	37.35	+18 − 8
9	7.61	4.85	+23 + 5	25.14	15.50	−23 + 8	26.86	27.76	−14 − 9	71.15	37.63	+34 − 5
10	8.40	5.17	+ 7 + 8	25.48	15.89	−36 + 5	26.60	28.13	+ 7 − 9	70.36	37.90	+43 − 1
11	9.19	5.50	−11 + 9	25.80	16.27	−41 + 1	26.33	28.50	+26 − 7	69.55	38.17	+43 + 4
12	9.96	5.82	−27 + 8	26.10	16.65	−37 − 3	26.03	28.86	+39 − 3	68.73	38.43	+35 + 8
13	10.72	6.15	−38 + 5	26.38	17.03	−23 − 7	25.72	29.22	+45 + 2	67.89	38.69	+21 +11
14	11.46	6.48	−39 0	26.65	17.42	− 4 − 8	25.38	29.58	+41 + 6	67.04	38.94	+ 3 +12
15	12.19	6.82	−31 − 4	26.90	17.80	+16 − 8	25.03	29.94	+30 +10	66.18	39.19	−13 +10
16	12.90	7.15	−15 − 7	27.13	18.19	+33 − 5	24.66	30.30	+14 +12	65.30	39.43	−26 + 8
17	13.60	7.49	+ 5 − 8	{27.34 {27.53	18.57 18.96	+43 − 1} +44 + 4}	24.27	30.65	− 3 +11	64.41	39.67	−34 + 4
18	14.29	7.83	+24 − 6	27.71	19.35	+37 + 8	23.86	31.00	−18 +10	63.50	39.90	−36 − 1
19	14.96	8.18	+38 − 3	27.86	19.73	+24 +11	23.43	31.35	−29 + 6	62.58	40.13	−32 − 5
20	15.62	8.53	+44 + 1	28.00	20.12	+ 7 +12	22.99	31.70	−35 + 2	61.65	40.35	−22 − 8
21	16.26	8.88	+42 + 5	28.12	20.51	− 9 +11	22.53	32.05	−36 − 2	60.70	40.57	− 8 −11
22	16.89	9.23	+32 + 9	28.22	20.90	−23 + 8	22.04	32.39	−29 − 6	59.74	40.78	+ 8 −11
23	17.50	9.58	+18 +11	28.31	21.29	−33 + 5	21.54	32.73	−17 − 9	58.77	40.99	+23 − 9
24	18.10	9.94	+ 1 +11	28.37	21.67	−36 0	21.03	33.06	− 2 −11	57.79	41.19	+33 − 6
25	18.68	10.30	−15 +10	28.42	22.06	−34 − 4	20.49	33.39	+13 −11	56.79	41.38	+36 − 2
26	19.25	10.66	−28 + 7	28.45	22.45	−25 − 8	19.94	33.72	+27 − 8	55.78	41.57	+31 + 3
27	19.80	11.02	−35 + 3	28.46	22.83	−12 −11	19.36	34.04	+34 − 5	54.77	41.75	+18 + 7
28	20.34	11.38	−37 − 2	28.45	23.22	+ 3 −11	18.77	34.36	+35 0	53.74	41.93	+ 1 + 9
29	20.86	11.75	−33 − 6	28.42	23.60	+18 −10	18.17	34.68	+26 + 4	52.71	42.10	−18 + 9
30	21.36	12.12	−22 −10	28.37	23.99	+30 − 8	17.54	34.99	+11 + 7	51.66	42.26	−33 + 6
31	21.85	12.49	− 8 −12	28.31	24.37	+35 − 4	16.90	35.30	− 8 + 9	50.60	42.42	−41 + 2
32				28.23	24.75	+31 + 1				49.54	42.57	−40 − 3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+88° 56′ 0″	53.718	+53.709	+88° 56′ 20″	53.999	+53.990	+88° 56′ 40″	54.283	+54.274
10	53.858	+53.849	30	54.141	+54.132	50	54.426	+54.417

$\alpha_{1931.0} = 1^h\ 37^m\ 25^s.31$ $\delta_{1931.0} = +88^\circ\ 56'\ 0''.92$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nc) Grb 750 $6^m.70$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$4^h 14^m$	$+85° 22'$	in $0^s.01$ | $0''.01$	$4^h 14^m$	$+85° 22'$	in $0^s.01$ | $0''.01$	$4^h 14^m$	$+85° 22'$	in $0^s.01$ | $0''.01$	$4^h 13^m$	$+85° 22'$	in $0^s.01$ | $0''.01$
1	19.89	35.70	− 6 −11	14.67	42.82	+ 8 − 4	7.83	44.70	+ 8 0	60.70	41.30	− 2 +11
2	19.78	35.99	− 1 −12	14.45	42.97	+ 9 + 2	7.57	44.68	+ 7 + 5	60.51	41.11	− 6 + 9
3	19.67	36.28	+ 3 −10	14.22	43.11	+ 7 + 7	7.32	44.65	+ 5 + 9	60.32	40.91	− 8 + 5
4	19.55	36.57	+ 7 − 6	13.99	43.25	+ 4 +10	7.07	44.61	+ 1 +11	60.14	40.71	− 8 0
5	19.43	36.85	+ 9 − 1	13.76	43.38	0 +11	6.82	44.57	− 3 +11	59.96	40.51	− 6 − 5
6	19.31	37.13	+ 9 + 4	13.53	43.51	− 4 +10	6.57	44.52	− 6 + 8	59.78	40.30	− 2 − 8
7	19.18	37.41	+ 6 + 9	13.30	43.63	− 7 + 6	6.32	44.47	− 7 + 3	59.61	40.09	+ 3 − 9
8	19.05	37.68	+ 2 +11	13.07	43.74	− 7 + 1	6.08	44.41	− 7 − 2	59.44	39.87	+ 7 − 8
9	18.91	37.95	− 2 +10	12.83	43.85	− 6 − 4	5.83	44.35	− 4 − 6	59.28	39.65	+10 − 5
10	18.77	38.21	− 5 + 8	12.59	43.95	− 2 − 7	5.58	44.28	0 − 9	59.12	39.42	+11 − 1
11	18.62	38.47	− 7 + 4	12.34	44.04	+ 2 − 9	5.34	44.20	+ 4 − 9	58.96	39.19	+11 + 3
12	18.47	38.73	− 7 − 1	12.10	44.13	+ 6 − 9	5.09	44.12	+ 8 − 7	58.81	38.96	+ 9 + 6
13	18.31	38.98	− 5 − 5	11.86	44.21	+ 9 − 6	4.85	44.03	+10 − 4	58.67	38.73	+ 5 + 9
14	18.15	39.22	− 1 − 8	11.61	44.29	+10 − 3	4.62	43.93	+11 0	58.53	38.49	+ 1 +10
15	17.99	39.46	+ 3 − 9	11.36	44.36	+10 + 1	4.38	43.83	+10 + 4	58.39	38.25	− 3 + 9
16	17.82	39.70	+ 6 − 8	11.11	44.42	+ 9 + 5	4.14	43.73	+ 7 + 7	58.25	38.00	− 7 + 7
17	17.65	39.94	+ 9 − 5	10.86	44.48	+ 5 + 8	3.91	43.62	+ 4 + 9	58.12	37.75	− 9 + 4
18	17.48	40.17	+10 − 1	10.61	44.53	+ 2 + 9	3.68	43.50	− 1 +10	58.00	37.50	−11 − 1
19	17.30	40.39	+ 9 + 3	10.36	44.58	− 3 + 9	3.44	43.38	− 5 + 9	57.88	37.24	−10 − 5
20	17.12	40.61	+ 7 + 6	10.11	44.62	− 7 + 8	3.21	43.25	− 8 + 6	57.76	36.98	− 8 − 9
21	16.94	40.82	+ 4 + 9	9.86	44.65	−10 + 4	2.99	43.11	−10 + 2	57.65	36.72	− 4 −12
22	16.75	41.03	0 + 9	9.60	44.68	−11 0	2.77	42.97	−11 − 3	57.54	36.46	0 −11
23	16.56	41.23	− 4 + 9	9.35	44.70	−11 − 5	2.55	42.83	−10 − 7	57.44	36.19	+ 4 − 9
24	16.36	41.43	− 8 + 6	9.10	44.71	− 9 − 9	2.33	42.68	− 7 −11	57.34	35.92	+ 7 − 5
25	16.16	41.62	−11 + 2	8.85	44.72	− 6 −12	2.12	42.52	− 3 −12	57.25	35.65	+ 8 0
26	15.96	41.81	−12 − 2	8.59	44.72	− 1 −12	1.91	42.36	+ 2 −11	57.16	35.38	+ 6 + 5
27	15.75	41.99	−11 − 6	8.34	44.72	+ 3 −10	1.70	42.20	+ 5 − 8	57.08	35.11	+ 3 + 9
28	15.54	42.17	− 8 −10	8.08	44.71	+ 7 − 6	1.49	42.03	+ 7 − 3	57.00	34.84	− 1 +11
29	15.33	42.34	− 4 −12	7.83	44.70	+ 8 0	1.29	41.85	+ 8 + 3	56.92	34.56	− 5 +10
30	15.11	42.51	+ 1 −11				1.09	41.67	+ 5 + 7	56.85	34.28	− 8 + 6
31	14.89	42.67	+ 5 − 8				0.89	41.49	+ 2 +10	56.79	34.00	− 9 + 1
32	14.67	42.82	+ 8 − 4				0.70	41.30	− 2 +11			

δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 22′ 30″	12.402	+12.361	+85° 22′ 40″	12.409	+12.369
40	12.409	+12.369	50	12.417	+12.376

$\alpha_{1931.0} = 4^h\ 14^m\ 11^s.03$ $\delta_{1931.0} = +85°\ 22'\ 17''.48$

Obere Kulmination Greenwich

Nc) Grb 750 $6^m.70$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$4^h 13^m$	$+85° 22'$	in 0.01^s | $0.01''$	$4^h 13^m$	$+85° 22'$	in 0.01^s | $0.01''$	$4^h 14^m$	$+85° 22'$	in 0.01^s | $0.01''$	$4^h 14^m$	$+85° 22'$	in 0.01^s | $0.01''$
1	$56^s.79$	$34''.00$	−9 +1	$57^s.25$	$25''.04$	+3 −10	$1^s.93$	$17''.66$	+11 −2	$10^s.02$	$13''.33$	+3 +10
2	56.73	33.72	−8 −3	57.35	24.77	+7 −8	2.15	17.46	+11 +2	10.31	13.26	−1 +10
3	56.67	33.43	−4 −7	57.45	24.49	+10 −5	2.37	17.26	+9 +6	10.61	13.19	−5 +8
4	56.62	33.15	0 −9	57.55	24.21	+11 −1	2.60	17.07	+6 +9	10.91	13.13	−8 +5
5	56.58	32.86	+5 −9	57.66	23.94	+10 +3	2.83	16.88	+1 +10	11.21	13.07	−10 +1
6	56.54	32.58	+9 −7	57.77	23.67	+8 +7	3.06	16.69	−3 +9	11.51	13.02	−11 −3
7	56.50	32.29	+11 −3	57.88	23.39	+4 +9	3.29	16.51	−6 +7	11.82	12.97	−9 −8
8	56.47	32.00	+11 +1	58.00	23.12	0 +10	3.53	16.33	−9 +4	12.13	12.93	−7 −11
9	56.45	31.71	+10 +5	58.12	22.86	−4 +9	3.77	16.16	−11 0	12.43	12.89	−3 −12
10	56.43	31.42	+7 +8	58.25	22.59	−7 +6	4.01	15.99	−10 −5	12.74	12.86	+2 −11
11	56.41	31.13	+3 +10	58.38	22.33	−10 +3	4.26	15.82	−8 −9	13.05	12.84	+5 −8
12	56.40	30.83	−1 +10	58.52	22.07	−11 −2	4.51	15.66	−5 −11	13.36	12.82	+8 −3
13	56.40	30.54	−5 +8	58.66	21.81	−9 −6	4.76	15.50	0 −12	13.68	12.80	+8 +3
14	56.40	30.24	−8 +5	58.81	21.55	−7 −10	5.02	15.35	+4 −10	13.99	12.78	+6 +8
15	56.40	29.95	−10 +1	58.96	21.30	−3 −12	5.27	15.20	+7 −6	14.30	12.77	+2 +11
16	56.41	29.66	−10 −4	59.12	21.05	+2 −11	5.53	15.06	+9 0	14.62	12.77	−2 +11
17	56.43	29.37	−9 −8	59.28	20.80	+6 −8	5.79	14.92	+8 +5	14.93	12.77	−5 +9
18	56.45	29.07	−5 −11	59.44	20.56	+8 −3	6.06	14.78	+5 +9	15.25	12.77	−8 +5
19	56.47	28.78	−1 −12	59.61	20.32	+9 +2	6.33	14.65	+1 +11	15.57	12.78	−8 0
20	56.50	28.49	+3 −10	59.78	20.08	+7 +7	6.60	14.52	−3 +11	15.88	12.80	−6 −5
21	56.53	28.19	+7 −7	59.96	19.84	+3 +10	6.88	14.40	−7 +7	16.20	12.82	−2 −8
22	56.57	27.90	+8 −2	60.14	19.61	−1 +11	7.15	14.28	−8 +3	16.52	12.84	+3 −10
23	56.62	27.61	+8 +4	60.33	19.38	−5 +9	7.43	14.16	−8 −2	16.84	12.87	+7 −9
24	56.67	27.32	+5 +8	60.52	19.15	−8 +5	7.71	14.05	−5 −7	17.15	12.90	+10 −6
25	56.72	27.04	+1 +11	60.71	18.93	−9 0	7.99	13.94	−1 −9	17.47	12.94	+11 −1
26	*)56.78	26.75	−4 +11	60.90	18.71	−7 −4	8.28	13.84	+4 −10	17.79	12.98	+11 +3
27	56.85	26.46	−7 +8	61.10	18.49	−4 −8	8.56	13.74	+8 −8	18.11	13.03	+9 +7
28	56.92	26.18	−9 +3	61.30	18.28	+1 −10	8.85	13.65	+10 −4	18.43	13.08	+5 +9
29	56.99	25.89	−9 −2	61.51	18.07	+5 −9	9.14	13.56	+11 0	18.75	13.14	+1 +10
30	57.07	25.61	−6 −6	61.72	17.86	+9 −6	9.43	13.48	+10 +4	19.07	13.20	−3 +9
31	57.16	25.32	−2 −9	61.93	17.66	+11 −2	9.72	13.40	+7 +8	19.38	13.27	−7 +7
32	57.25	25.04	+3 −10				10.02	13.33	+3 +10	19.70	13.34	−10 +3

δ	sec δ	tg δ	δ	sec δ	tg δ
$+85° 22' 10''$	12.387	+12.346	$+85° 22' 30''$	12.402	+12.361
20	12.394	+12.354	40	12.409	+12.369

$\alpha_{1931.0} = 4^h\ 14^m\ 11^s.03$ $\delta_{1931.0} = +85°\ 22'\ 17''.48$

*) Tag der doppelten unteren Kulmination: Mai 26

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nc) Grb 750 6ᵐ.70

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	4ʰ 14ᵐ	+85° 22′	in 0.01ˢ | 0.01″	4ʰ 14ᵐ	+85° 22′	in 0.01ˢ | 0.01″	4ʰ 14ᵐ	+85° 22′	in 0.01ˢ | 0.01″	4ʰ 14ᵐ	+85° 22′	in 0.01ˢ | 0.01″
1	19ˢ.70	13″.34	−10 + 3	28ˢ.87	17″.54	− 9 − 8	36ˢ.39	25″.56	+ 5 − 8	40ˢ.34	35″.84	+ 3 + 8
2	20.02	13.42	−11 − 2	29.15	17.75	− 6 −11	36.58	25.87	+ 7 − 4	40.39	36.19	− 1 +10
3	20.34	13.50	−10 − 6	29.43	17.96	− 2 −12	36.77	26.18	+ 7 + 1	40.44	36.53	− 5 +10
4	20.65	13.58	− 8 −10	29.71	18.17	+ 2 −10	36.95	26.49	+ 5 + 6	40.48	36.88	− 9 + 7
5	20.97	13.67	− 4 −12	29.98	18.39	+ 5 − 7	37.13	26.80	+ 2 + 9	40.52	37.22	−10 + 2
6	21.28	13.76	0 −12	30.26	18.61	+ 7 − 2	37.31	27.12	− 3 +10	40.55	37.56	− 9 − 3
7	21.60	13.86	+ 3 − 9	30.53	18.84	+ 6 + 3	37.48	27.44	− 7 + 9	40.58	37.91	− 6 − 7
8	21.92	13.96	+ 6 − 5	30.80	19.07	+ 4 + 8	37.65	27.76	− 9 + 5	40.60	38.25	− 1 −10
9	22.23	14.07	+ 7 0	31.07	19.30	0 +10	37.81	28.08	−10 0	40.62	38.59	+ 4 −10
10	22.55	14.18	+ 6 + 6	31.33	19.54	− 4 +10	37.97	28.40	− 8 − 5	40.63	38.93	+ 8 − 8
11	22.86	14.30	+ 3 + 9	31.59	19.78	− 7 + 8	38.13	28.73	− 4 − 8	40.64	39.27	+11 − 4
12	23.17	14.42	− 1 +11	31.85	20.02	− 9 + 3	38.28	29.05	+ 1 −10	40.64	39.61	+12 + 1
13	23.49	14.55	− 4 +10	32.11	20.27	− 8 − 2	38.43	29.38	+ 6 − 9	40.63	39.95	+10 + 5
14	23.80	14.68	− 7 + 6	32.36	20.52	− 5 − 6	38.57	29.71	+10 − 6	40.62	40.28	+ 8 + 9
15	24.11	14.81	− 8 + 2	32.61	20.77	− 1 − 9	38.71	30.04	+12 − 2	40.61	40.62	+ 4 +10
16	24.42	14.95	− 7 − 3	32.86	21.03	+ 4 −10	38.84	30.38	+12 + 3	40.59	40.96	− 1 +10
17	24.72	15.09	− 3 − 7	33.10	21.29	+ 8 − 8	38.97	30.72	+10 + 7	40.57	41.29	− 4 + 9
18	25.03	15.24	+ 1 − 9	33.34	21.55	+11 − 4	39.09	31.05	+ 6 +10	40.54	41.61	− 8 + 5
19	25.34	15.39	+ 6 − 9	33.58	21.82	+12 0	39.21	31.39	+ 2 +11	40.50	41.94	− 9 + 1
20	25.64	15.55	+ 9 − 7	33.82	22.09	+11 + 5	39.32	31.73	− 2 +10	40.46	42.27	− 9 − 3
21	25.94	15.71	+11 − 3	34.05	22.37	+ 8 + 8	39.43	32.07	− 6 + 8	40.42	42.59	− 8 − 7
22	26.24	15.87	+12 + 2	34.28	22.65	+ 5 +10	39.54	32.41	− 8 + 4	40.37	42.91	− 5 −10
23	26.54	16.04	+10 + 6	34.51	22.93	0 +10	39.64	32.75	−10 − 1	40.31	43.24	− 1 −11
24	26.84	16.21	+ 7 + 9	34.73	23.21	− 4 + 9	39.74	33.09	− 9 − 5	40.25	43.56	+ 3 −10
25	27.14	16.39	+ 3 +10	34.95	23.49	− 7 + 6	{39.83 {39.92	33.44 33.78	−7 − 9} −4 −11}	40.19	43.87	+ 6 − 7
26	27.43	16.57	− 2 +10	35.17	23.78	− 9 + 2	40.00	34.12	0 −11	40.12	44.18	+ 8 − 3
27	27.72	16.76	− 5 + 8	35.38	24.07	−10 − 2	40.08	34.47	+ 4 − 9	40.05	44.49	+ 8 + 3
28	28.01	16.95	− 8 + 4	35.59	24.36	− 9 − 6	40.15	34.81	+ 7 − 6	39.97	44.80	+ 5 + 7
29	28.30	17.14	−10 0	35.79	24.66	− 6 −10	40.22	35.16	+ 8 − 1	39.89	45.10	+ 2 +10
30	28.58	17.34	−10 − 4	35.99	24.96	− 3 −11	40.28	35.50	+ 6 + 4	39.80	45.40	− 3 +10
31	28.87	17.54	− 9 − 8	36.19	25.26	+ 1 −11	40.34	35.84	+ 3 + 8	39.71	45.70	− 7 + 8
32				36.39	25.56	+ 5 − 8				39.61	45.99	− 9 + 4

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+85° 22′ 10″	12.387	+12.346	+85° 22′ 30″	12.402	+12.361	+85° 22′ 40″	12.409	+12.369
20	12.394	+12.354	40	12.409	+12.369	50	12.417	+12.376

$\alpha_{1931.0} = 4^h\ 14^m 11^s.03$ $\delta_{1931.0} = +85°\ 22'\ 17''.48$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei $5^m.26$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$7^h 9^m$	$+87°9'$	in 0.01^s	$0.01''$	$7^h 9^m$	$+87°9'$	in 0.01^s	$0.01''$	$7^h 9^m$	$+87°9'$	in 0.01^s	$0.01''$	$7^h 8^m$	$+87°9'$	in 0.01^s	$0.01''$
1	$17^s.38$	$40''.19$	−18	0	$18^s.26$	$50''.33$	+7	−8	$12^s.06$	$57''.59$	+9	−6	$60^s.46$	$61''.23$	+6	+10
2	17.55	40.50	−16	−5	18.14	50.63	+12	−4	11.74	57.79	+13	−1	60.05	61.25	0	+11
3	17.70	40.81	−12	−9	18.01	50.93	+15	+1	11.42	57.98	+14	+4	59.65	61.27	−6	+9
4	17.85	41.13	−4	−11	17.88	51.22	+14	+6	11.09	58.17	+11	+8	59.24	61.28	−10	+5
5	17.99	41.44	+3	−10	17.74	51.52	+10	+9	10.75	58.36	+5	+11	58.83	61.28	−11	0
6	18.12	41.76	+10	−7	17.59	51.81	+3	+10	10.41	58.54	−1	+10	58.43	61.28	−9	−5
7	18.24	42.07	+15	−2	17.43	52.10	−3	+9	10.07	58.71	−6	+7	58.02	61.27	−5	−9
8	{18.35 18.45	42.39 42.71	+16 +13	+3 +7}	17.26	52.39	−8	+6	9.73	58.88	−10	+3	57.61	61.26	+1	−11
9	18.55	43.03	+7	+10	17.09	52.67	−10	+1	9.38	59.05	−10	−3	57.21	61.24	+7	−11
10	18.64	43.35	+1	+10	16.90	52.95	−9	−4	9.02	59.21	−7	−7	56.80	61.22	+12	−9
11	18.72	43.67	−5	+8	16.71	53.23	−6	−8	8.66	59.36	−2	−10	56.40	61.19	+15	−5
12	18.78	43.99	−10	+4	16.51	53.50	−1	−11	8.29	59.51	+3	−11	56.00	61.15	+16	−1
13	18.84	44.31	−11	−1	16.31	53.77	+5	−11	7.92	59.65	+9	−10	55.60	61.11	+14	+3
14	18.89	44.63	−9	−6	16.10	54.04	+10	−9	7.55	59.79	+13	−8	55.20	61.06	+10	+7
15	18.93	44.96	−5	−9	15.88	54.31	+13	−6	7.18	59.92	+15	−4	54.81	61.00	+4	+9
16	18.96	45.28	+1	−11	15.65	54.57	+14	−2	6.80	60.04	+15	+1	54.41	60.94	−2	+10
17	18.98	45.60	+6	−10	15.41	54.83	+13	+3	6.42	60.16	+12	+5	54.02	60.87	−8	+9
18	18.99	45.92	+11	−8	15.17	55.08	+10	+6	6.04	60.27	+8	+8	53.63	60.80	−14	+6
19	19.00	46.24	+13	−4	14.92	55.33	+5	+9	5.65	60.38	+2	+10	53.24	60.72	−17	+2
20	19.00	46.56	+14	0	14.66	55.58	−1	+11	5.26	60.48	−5	+10	52.86	60.64	−17	−2
21	18.99	46.88	+12	+4	14.40	55.82	−8	+10	4.87	60.58	−11	+8	52.48	60.55	−15	−6
22	18.97	47.20	+8	+8	14.13	56.05	−14	+7	4.47	60.67	−16	+5	52.10	60.46	−10	−9
23	18.94	47.52	+2	+10	13.85	56.28	−18	+4	4.08	60.75	−18	+1	51.72	60.36	−3	−10
24	18.90	47.83	−4	+11	13.56	56.51	−19	−1	3.68	60.83	−17	−4	51.35	60.25	+4	−8
25	18.85	48.15	−11	+9	13.27	56.74	−17	−5	3.28	60.90	−14	−8	50.98	60.14	+9	−5
26	18.79	48.46	−16	+6	12.98	56.96	−12	−9	2.88	60.96	−8	−10	50.61	60.02	+12	0
27	18.72	48.78	−19	+2	12.68	57.17	−5	−10	2.48	61.02	0	−10	50.25	59.90	+12	+5
28	18.64	49.09	−18	−3	12.37	57.38	+3	−9	2.07	61.07	+7	−7	49.89	59.77	+8	+9
29	18.56	49.40	−15	−7	12.06	57.59	+9	−6	1.67	61.12	+11	−3	49.54	59.64	+2	+11
30	18.47	49.71	−8	−10					1.27	61.16	+13	+3	49.19	59.50	−4	+10
31	18.37	50.02	−1	−10					0.86	61.20	+11	+7	48.84	59.36	−9	+7
32	18.26	50.33	+7	−8					0.46	61.23	+6	+10				

δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 9′ 40″	20.191	+20.166	+87° 9′ 60″	20.230	+20.206
50	20.210	+20.186	70	20.250	+20.225

$\alpha_{1931.0} = 7^h\ 8^m\ 49^s.97$ $\delta_{1931.0} = +87°\ 9'\ 34''.90$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei $5^m.26$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$7^h\ 8^m$	$+87°\ 9'$	in 0.01^s	in $0.01''$	$7^h\ 8^m$	$+87°\ 9'$	in 0.01^s	in $0.01''$	$7^h\ 8^m$	$+87°\ 9'$	in 0.01^s	in $0.01''$	$7^h\ 8^m$	$+87°\ 9'$	in 0.01^s	in $0.01''$
1	$48^s.84$	$59''.36$	−9	+7	$40^s.71$	$52''.70$	−5	−10	$39^s.01$	$43''.66$	+10	−9	$44^s.17$	$34''.01$	+12	+6
2	48.50	59.21	−12	+2	40.55	52.43	+1	−11	39.07	43.35	+14	−5	44.45	33.72	+7	+9
3	48.16	59.06	−11	−3	40.40	52.16	+8	−10	39.13	43.03	+15	−1	44.73	33.43	+1	+10
4	47.83	58.90	−7	−8	40.25	51.88	+12	−8	39.20	42.71	+14	+3	45.02	33.14	−5	+10
5	47.50	58.73	−2	−11	40.11	51.60	+15	−4	39.28	42.39	+10	+7	45.31	32.86	−11	+8
6	47.18	58.56	+4	−11	39.97	51.32	+15	0	39.37	42.07	+5	+9	45.61	32.57	−16	+5
7	46.86	58.39	+10	−10	39.84	51.03	+13	+5	39.47	41.75	−1	+10	45.92	32.29	−18	0
8	46.54	58.21	+14	−7	39.72	50.74	+9	+8	39.57	41.43	−8	+9	46.23	32.01	−17	−4
9	46.23	58.03	+16	−2	39.61	50.45	+3	+10	39.68	41.11	−13	+7	46.55	31.73	−13	−8
10	45.92	57.84	+15	+2	39.50	50.16	−4	+10	*)39.80	40.79	−17	+3	46.87	31.46	−7	−10
11	45.62	57.65	+12	+6	39.40	49.86	−10	+9	39.92	40.48	−17	−1	47.20	31.19	0	−9
12	45.33	57.45	+7	+9	39.31	49.57	−14	+5	40.05	40.16	−15	−6	47.54	30.92	+7	−7
13	45.04	57.25	+1	+10	39.23	49.27	−17	+1	40.19	39.85	−10	−9	47.88	30.65	+12	−3
14	44.76	57.05	−6	+10	39.16	48.97	−16	−3	40.34	39.53	−3	−10	48.23	30.39	+14	+2
15	44.48	56.84	−11	+8	39.09	48.67	−13	−7	40.49	39.22	+4	−9	48.58	30.13	+12	+7
16	44.21	56.63	−16	+4	39.03	48.36	−7	−10	40.65	38.90	+10	−6	48.94	29.87	+7	+10
17	43.94	56.41	−17	0	38.98	48.06	0	−10	40.82	38.59	+14	−1	49.30	29.61	+1	+11
18	43.68	56.19	−16	−5	38.93	47.75	+7	−8	41.00	38.27	+14	+4	49.67	29.36	−5	+9
19	43.43	55.96	−12	−8	38.89	47.44	+12	−4	41.18	37.96	+11	+8	50.04	29.11	−9	+5
20	43.18	55.73	−5	−10	38.86	47.13	+14	+1	41.37	37.65	+5	+11	50.42	28.86	−11	0
21	42.94	55.50	+2	−10	38.84	46.82	+13	+6	41.57	37.34	−2	+10	50.80	28.62	−9	−6
22	42.70	55.26	+9	−7	38.82	46.51	+8	+10	41.77	37.03	−8	+8	51.19	28.38	−5	−10
23	42.47	55.02	+13	−2	38.81	46.20	+1	+11	41.98	36.72	−11	+3	51.59	28.14	+1	−11
24	42.25	54.78	+13	+3	38.81	45.88	−5	+10	42.20	36.42	−12	−2	51.99	27.90	+7	−11
25	42.03	54.53	+10	+8	38.81	45.57	−10	+6	42.42	36.11	−9	−7	52.39	27.67	+12	−9
26	41.82	54.28	+5	+11	38.82	45.26	−12	+1	42.65	35.81	−4	−10	52.80	27.44	+15	−5
27	41.62	54.03	−2	+11	38.84	44.94	−11	−4	42.89	35.50	+3	−11	53.21	27.21	+16	0
28	41.42	53.77	−8	+9	38.87	44.62	−7	−9	43.13	35.20	+9	−10	53.63	26.99	+14	+4
29	41.23	53.51	−12	+4	38.91	44.30	−2	−11	43.38	34.90	+13	−7	54.05	26.77	+10	+8
30	41.05	53.24	−12	−1	38.96	43.98	+5	−11	43.64	34.60	+15	−3	54.48	26.56	+4	+10
31	40.88	52.97	−10	−6	39.01	43.66	+10	−9	43.90	34.30	+15	+2	54.91	26.35	−3	+10
32	40.71	52.70	−5	−10					44.17	34.01	+12	+6	55.35	26.14	−9	+9

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 9′ 20″	20.151	+20.126	+87° 9′ 40″	20.191	+20.166	+87° 9′ 50″	20.210	+20.186
30	20.171	+20.146	50	20.210	+20.186	60	20.230	+20.206

$\alpha_{1931.0} = 7^h\ 8^m\ 49^s.97 \qquad \delta_{1931.0} = +87°\ 9'\ 34''.90$

*) Tag der doppelten unteren Kulmination: Juli 10

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nd) 51 Hev. Cephei $5^m.26$

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$7^h 8^m$	+87° 9′	in $0^s.01$ | $0''.01$	$7^h 9^m$	+87° 9′	in $0^s.01$ | $0''.01$	$7^h 9^m$	+87° 9′	in $0^s.01$ | $0''.01$	$7^h 9^m$	+87° 9′	in $0^s.01$ | $0''.01$
1	55.35	26.14	− 9 + 9	9.99	21.72	−17 − 1	26.37	21.46	− 2 −10	40.37	25.70	+12 0
2	55.79	25.93	−14 + 6	10.51	21.64	−16 − 5	26.89	21.53	+ 5 − 8	40.77	25.91	+12 + 5
3	56.23	25.73	−17 + 2	11.04	21.56	−12 − 8	27.40	21.60	+10 − 4	41.16	26.12	+ 8 + 9
4	56.68	25.53	−18 − 2	11.56	21.49	− 6 −10	27.91	21.68	+12 + 1	41.54	26.34	+ 2 +11
5	57.13	25.34	−15 − 6	12.09	21.42	+ 1 − 9	28.42	21.77	+10 + 7	41.92	26.57	− 4 +11
6	57.59	25.15	−10 − 9	12.62	21.36	+ 7 − 6	28.93	21.86	+ 6 +10	42.29	26.80	−10 + 8
7	58.05	24.96	− 3 −10	13.15	21.30	+11 − 1	29.44	21.96	0 +11	42.66	27.03	−14 + 3
8	58.51	24.78	+ 3 − 8	13.68	21.25	+12 + 4	29.94	22.06	− 7 +10	43.02	27.27	−14 − 2
9	58.98	24.60	+ 9 − 4	14.21	21.20	+ 9 + 8	30.44	22.16	−11 + 6	43.37	27.51	−10 − 7
10	59.45	24.43	+12 0	14.74	21.15	+ 4 +11	30.93	22.27	−13 + 1	43.71	27.76	− 4 −10
11	59.92	24.26	+12 + 5	15.27	21.11	− 2 +11	31.42	22.39	−12 − 4	44.05	28.01	+ 3 −12
12	60.40	24.09	+ 8 + 9	15.81	21.08	− 8 + 8	31.91	22.51	− 7 − 9	44.38	28.26	+10 −10
13	60.88	23.93	+ 3 +11	16.34	21.05	−11 + 4	32.39	22.63	0 −11	44.71	28.51	+15 − 7
14	61.36	23.77	− 3 +10	16.87	21.03	−12 − 1	32.87	22.76	+ 7 −12	45.03	28.77	+17 − 3
15	61.85	23.61	− 8 + 7	17.41	21.01	− 9 − 7	33.35	22.90	+13 − 9	45.34	29.03	+17 + 2
16	62.34	23.46	−11 + 2	17.94	21.00	− 4 −10	33.82	23.04	+16 − 6	45.65	29.30	+13 + 6
17	62.84	23.31	−11 − 4	18.47	20.99	+ 3 −12	34.29	23.19	+18 − 1	45.95	29.57	+ 8 + 9
18	63.33	23.17	− 7 − 8	19.00	20.99	+10 −11	34.75	23.34	+16 + 3	46.24	29.84	+ 2 +10
19	63.83	23.03	− 1 −11	19.54	20.99	+14 − 8	35.21	23.49	+12 + 7	46.52	30.11	− 4 + 9
20	64.33	22.90	+ 6 −12	20.07	20.99	+17 − 4	35.67	23.65	+ 6 + 9	46.79	30.39	−10 + 7
21	64.83	22.77	+11 −10	20.60	21.00	+17 + 1	36.12	23.82	0 +10	47.05	30.67	−14 + 4
22	65.34	22.64	+15 − 6	21.13	21.02	+14 + 5	36.57	23.99	− 7 + 9	47.31	30.95	−16 0
23	65.84	22.52	+17 − 2	21.66	21.04	+ 9 + 8	37.01	24.16	−12 + 6	47.56	31.24	−15 − 5
24	66.35	22.40	+16 + 2	22.19	21.07	+ 3 +10	37.45	24.33	−15 + 2	47.80	31.53	−11 − 8
25	66.86	22.29	+12 + 6	22.72	21.10	− 3 +10	37.88	24.51	−16 − 2	48.04	31.82	− 6 −10
26	67.38	22.18	+ 7 + 9	23.24	21.14	− 9 + 8	38.31	24.70	−14 − 6	48.27	32.11	+ 1 −10
27	67.90	22.08	0 +10	23.77	21.18	−14 + 5	38.73	24.89	− 9 − 9	48.49	32.40	+ 7 − 7
28	68.42	21.98	− 6 + 9	24.30	21.23	−16 + 1	39.15	25.08	− 3 −10	48.70	32.70	+12 − 3
29	68.94	21.89	−12 + 7	24.82	21.28	−16 − 4	39.56	25.28	+ 3 − 9	48.90	33.00	+13 + 2
30	69.46	21.80	−16 + 3	25.34	21.33	−13 − 7	39.97	25.49	+ 9 − 5	49.09	33.30	+11 + 7
31	69.99	21.72	−17 − 1	25.86	21.39	− 8 − 9	40.37	25.70	+12 0	49.27	33.61	+ 6 +10
32				26.37	21.46	− 2 −10				49.45	33.91	− 1 +11

δ	sec δ	tg δ	δ	sec δ	tg δ
+87° 9′ 20″	20.151	+20.126	+87° 9′ 30″	20.171	+20.146
30	20.171	+20.146	40	20.191	+20.166

$\alpha_{1931.0} = 7^h\ 8^m\ 49^s.97$ $\delta_{1931.0} = +87°\ 9'\ 34''.90$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis $4^m.58$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$9^h 27^m$	+81° 37′	in 0.01s 0.01″	$9^h 27^m$	+81° 38′	in 0.01s 0.01″	$9^h 27^m$	+81° 38′	in 0.01s 0.01″	$9^h 27^m$	+81° 38′	in 0.01s 0.01″
1	32.76	54.01	−6 + 7	35.89	1.33	−2 − 8	36.29	9.99	+2 − 8	34.14	17.83	+4 + 6
2	32.90	54.19	−7 + 2	35.95	1.62	+1 − 9	36.26	10.28	+5 − 5	34.04	18.02	+2 + 9
3	33.04	54.37	−6 − 3	36.00	1.91	+4 − 8	36.23	10.57	+6 − 1	33.93	18.21	0 + 9
4	33.17	54.55	−4 − 7	36.05	2.20	+5 − 5	36.19	10.86	+5 + 3	33.83	18.39	−2 + 7
5	33.30	54.74	−1 − 9	36.09	2.49	+6 0	36.15	11.15	+4 + 7	33.72	18.57	−4 + 3
6	33.43	54.93	+2 − 9	36.14	2.78	+5 + 4	36.11	11.43	+2 + 9	33.61	18.75	−4 − 1
7	33.56	55.13	+5 − 7	36.18	3.07	+3 + 7	36.06	11.72	−1 + 8	33.50	18.92	−3 − 6
8	33.68	55.33	+6 − 3	36.22	3.37	+1 + 8	36.01	12.00	−3 + 5	33.39	19.08	−2 −10
9	33.80	55.54	+6 + 1	36.26	3.67	−2 + 7	35.96	12.28	−4 + 1	33.27	19.24	0 −12
10	33.92	55.75	+5 + 6	36.29	3.97	−3 + 4	35.91	12.56	−4 − 4	33.15	19.39	+2 −12
11	34.04	55.97	+2 + 8	36.32	4.27	−4 0	35.85	12.83	−3 − 8	33.03	19.54	+4 −10
12	34.15	56.19	0 + 8	{36.34 / 36.36}	{4.57 / 4.87}	{−4 − 5 / −3 − 9}	35.79	13.10	−1 −11	32.92	19.68	+5 − 6
13	34.26	56.42	−3 + 6	36.38	5.17	−1 −11	35.73	13.37	+1 −12	32.80	19.82	+6 − 2
14	34.37	56.65	−4 + 3	36.40	5.48	+2 −11	35.67	13.63	+3 −11	32.68	19.95	+5 + 2
15	34.48	56.89	−4 − 2	36.41	5.78	+4 −10	35.60	13.89	+4 − 8	32.56	20.08	+4 + 6
16	34.59	57.13	−4 − 6	36.42	6.08	+5 − 7	35.53	14.15	+5 − 5	32.44	20.20	+1 + 9
17	34.69	57.37	−2 − 9	36.43	6.39	+5 − 3	35.46	14.41	+5 0	32.31	20.32	−1 +11
18	34.79	57.61	0 −11	36.44	6.69	+5 + 2	35.39	14.67	+4 + 4	32.19	20.43	−4 +10
19	34.89	57.85	+2 −11	36.44	6.99	+4 + 6	35.31	14.92	+2 + 8	32.07	20.54	−6 + 8
20	34.98	58.10	+4 − 8	36.44	7.29	+2 + 9	35.23	15.17	0 +10	31.94	20.64	−7 + 4
21	35.07	58.35	+5 − 5	36.43	7.60	−1 +11	35.15	15.41	−2 +11	31.81	20.74	−7 0
22	35.16	58.61	+5 − 1	36.42	7.90	−3 +11	35.07	15.65	−4 +10	31.69	20.83	−5 − 4
23	35.25	58.87	+4 + 4	36.41	8.20	−5 +10	34.98	15.89	−6 + 7	31.56	20.92	−3 − 7
24	35.33	59.13	+3 + 8	36.40	8.50	−7 + 6	34.90	16.12	−7 + 3	31.44	21.00	0 − 8
25	35.41	59.40	+1 +10	36.38	8.80	−7 + 2	34.81	16.35	−6 − 1	31.31	21.07	+3 − 7
26	35.48	59.67	−2 +12	36.36	9.10	−6 − 3	34.72	16.57	−5 − 5	31.18	21.14	+5 − 4
27	35.56	59.94	−4 +11	36.34	9.40	−4 − 7	34.63	16.79	−2 − 8	31.05	21.20	+5 0
28	35.63	60.21	−6 + 8	36.32	9.69	−1 − 8	34.53	17.01	+1 − 8	30.93	21.26	+5 + 5
29	35.70	60.49	−7 + 4	36.29	9.99	+2 − 8	34.44	17.22	+3 − 6	30.80	21.31	+3 + 8
30	35.77	60.77	−7 0				34.34	17.43	+5 − 2	30.67	21.35	+1 +10
31	35.83	61.05	−5 − 5				34.24	17.63	+5 + 2	30.54	21.39	−2 + 9
32	35.89	61.33	−2 − 8				34.14	17.83	+4 + 6			

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 37′ 50″	6.870	+6.797	+81° 38′ 0″	6.873	+6.799	+81° 38′ 20″	6.877	+6.804
60	6.873	+6.799	10	6.875	+6.802	30	6.879	+6.806

$\alpha_{1931.0} = 9^h\ 27^m\ 23^s.94$ $\delta_{1931.0} = +81°\ 38'\ 1''.34$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis $4^m.58$

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$9^h 27^m$	+ $81° 38'$	in $0^s.01$ | $0''.01$	$9^h 27^m$	+ $81° 38'$	in $0^s.01$ | $0''.01$	$9^h 27^m$	+ $81° 38'$	in $0^s.01$ | $0''.01$	$9^h 27^m$	+ $81° 37'$	in $0^s.01$ | $0''.01$
1	30.54	21.39	−2 + 9	26.71	19.82	−4 − 6	24.07	13.71	+2 −11	23.19	64.20	+5 0
2	30.41	21.42	−4 + 6	26.60	19.68	−2 −10	24.02	13.45	+4 −10	23.20	63.86	+4 + 5
3	30.28	21.45	−5 + 1	26.49	19.54	0 −12	23.96	13.18	+5 − 7	23.21	63.52	+2 + 8
4	30.15	21.47	−4 − 4	26.38	19.39	+3 −11	23.90	12.91	+6 − 2	23.22	63.18	0 +10
5	30.02	21.49	−3 − 8	26.27	19.24	+5 − 9	23.85	12.63	+5 + 2	23.23	62.84	−2 +11
6	29.89	21.50	−1 −11	26.17	19.08	+6 − 5	23.80	12.35	+4 + 6	23.24	62.50	−5 +10
7	29.76	21.51	+2 −12	26.07	18.92	+6 − 1	23.74	12.07	+2 + 9	23.26	62.15	−6 + 7
8	29.64	21.51	+4 −11	25.96	18.75	+5 + 3	23.69	11.78	−1 +11	23.28	61.81	−7 + 3
9	29.51	21.50	+5 − 8	25.86	18.58	+3 + 7	23.65	11.49	−3 +10	23.30	61.46	−6 − 1
10	29.38	21.49	+6 − 4	25.76	18.40	+1 +10	23.60	11.20	−5 + 8	23.33	61.12	−4 − 5
11	29.25	21.47	+5 0	25.66	18.22	−2 +11	23.56	10.91	−6 + 5	23.36	60.77	−2 − 8
12	29.13	21.45	+4 + 5	25.56	18.03	−4 +10	23.53	10.61	−7 + 1	23.39	60.42	+1 − 8
13	29.00	21.42	+2 + 8	25.47	17.84	−6 + 7	23.49	10.31	−6 − 4	23.42	60.07	+4 − 7
14	28.87	21.39	0 +10	25.38	17.65	−7 + 3	23.45	10.01	−3 − 7	*)23.46	59.73	+5 − 3
15	28.75	21.35	−3 +10	25.29	17.45	−6 − 1	23.42	9.70	0 − 9	23.49	59.38	+6 + 1
16	28.62	21.30	−5 + 9	25.20	17.25	−5 − 5	23.39	9.39	+2 − 9	23.53	59.03	+5 + 6
17	28.49	21.25	−6 + 6	25.11	17.04	−2 − 8	23.35	9.08	+5 − 6	23.57	58.68	+2 + 9
18	28.37	21.19	−7 + 1	25.02	16.83	+1 − 9	23.32	8.77	+6 − 2	23.61	58.33	0 + 9
19	28.24	21.13	−6 − 3	24.94	16.61	+3 − 8	23.30	8.46	+6 + 3	23.65	57.98	−2 + 7
20	28.12	21.06	−4 − 7	24.86	16.39	+5 − 4	23.28	8.15	+4 + 7	23.70	57.63	−4 + 4
21	27.99	20.98	−1 − 9	24.78	16.16	+6 0	23.26	7.83	+1 + 9	23.75	57.28	−4 − 1
22	27.87	20.90	+2 − 8	24.70	15.93	+5 + 5	23.24	7.50	−1 + 9	23.80	56.93	−4 − 6
23	27.75	20.82	+4 − 6	24.62	15.70	+3 + 9	23.23	7.18	−3 + 6	23.86	56.59	−2 −10
24	27.63	20.73	+5 − 2	24.55	15.46	0 +10	23.22	6.86	−5 + 2	23.91	56.24	0 −12
25	27.51	20.63	+5 + 3	24.47	15.22	−2 + 9	23.21	6.53	−5 − 3	23.97	55.89	+2 −11
26	27.39	20.53	+4 + 7	24.40	14.98	−4 + 5	23.20	6.20	−3 − 7	24.03	55.54	+4 − 9
27	27.28	20.43	+2 +10	24.33	14.73	−5 0	23.19	5.88	−1 −10	24.09	55.20	+5 − 6
28	27.16	20.32	−1 +10	24.26	14.48	−4 − 4	23.18	5.55	+1 −12	24.15	54.85	+6 − 1
29	27.04	20.20	−3 + 8	24.20	14.23	−3 − 8	23.18	5.21	+3 −11	24.22	54.50	+5 + 3
30	26.93	20.08	−5 + 3	24.13	13.97	0 −11	23.18	4.87	+5 − 8	24.29	54.16	+3 + 7
31	26.82	19.95	−5 − 2	24.07	13.71	+2 −11	23.18	4.54	+6 − 4	24.36	53.81	+1 + 9
32	26.71	19.82	−4 − 6				23.19	4.20	+5 0	24.43	53.47	−1 +11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 37′ 50″	6.870	+6.797	+81° 38′ 0″	6.873	+6.799	+81° 38′ 20″	6.877	+6.804
60	6.873	+6.799	10	6.875	+6.802	30	6.879	+6.806

$\alpha_{1931.0} = 9^h\ 27^m\ 23^s.94 \qquad \delta_{1931.0} = +81°\ 38'\ 1''.34$

*) Tag der doppelten unteren Kulmination: Aug. 14

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ne) 1 Hev. Draconis $4^m.58$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$9^h 27^m$	+ 81° 37′	in 0.01 s	in 0.01″	$9^h 27^m$	+ 81° 37′	in 0.01 s	in 0.01″	$9^h 27^m$	+ 81° 37′	in 0.01 s	in 0.01″	$9^h 27^m$	+ 81° 37′	in 0.01 s	in 0.01″
	s	″			s	″			s	″			s	″		
1	24.43	53.47	−1	+11	27.53	43.88	−6	+6	32.26	36.74	−3	−7	37.54	34.14	+4	−5
2	24.51	53.13	−4	+10	27.66	43.60	−7	+2	32.43	36.58	0	−8	37.72	34.14	+5	0
3	24.58	52.78	−6	+8	27.79	43.32	−6	−2	32.60	36.42	+3	−6	37.90	34.14	+5	+4
4	24.66	52.44	−7	+4	27.92	43.04	−4	−6	32.77	36.27	+4	−3	38.07	34.15	+3	+8
5	24.74	52.10	−7	0	28.06	42.76	−2	−8	32.95	36.12	+5	+2	38.25	34.17	+1	+11
6	24.82	51.76	−5	−4	28.20	42.49	+1	−7	33.12	35.98	+4	+6	38.42	34.19	−2	+10
7	24.91	51.43	−3	−7	28.34	42.22	+3	−5	33.29	35.84	+2	+10	38.60	34.22	−4	+8
8	25.00	51.09	0	−8	28.48	41.95	+5	−1	33.47	35.71	0	+11	38.77	34.25	−5	+3
9	25.09	50.75	+2	−7	28.63	41.69	+5	+3	33.64	35.58	−3	+9	38.94	34.29	−5	−2
10	25.18	50.42	+4	−4	28.77	41.43	+4	+7	33.82	35.46	−4	+5	39.11	34.34	−4	−7
11	25.27	50.09	+5	0	28.91	41.18	+1	+10	34.00	35.34	−5	+1	39.28	34.39	−1	−11
12	25.37	49.76	+5	+4	29.06	40.93	−1	+10	34.17	35.23	−4	−5	39.45	34.45	+1	−12
13	25.46	49.43	+3	+8	29.21	40.68	−3	+7	34.35	35.12	−2	−9	39.61	34.51	+4	−11
14	25.56	49.11	+1	+9	29.36	40.44	−4	+3	34.53	35.02	0	−12	39.78	34.58	+5	−8
15	25.66	48.78	−2	+8	29.51	40.20	−5	−2	34.70	34.92	+3	−12	39.95	34.65	+6	−4
16	25.76	48.46	−4	+5	29.66	39.96	−4	−7	34.88	34.83	+5	−10	40.11	34.73	+6	0
17	25.87	48.14	−5	0	29.81	39.73	−1	−11	35.06	34.74	+6	−7	40.27	34.81	+5	+4
18	25.97	47.82	−4	−5	29.97	39.50	+1	−12	35.24	34.66	+6	−3	40.43	34.90	+3	+7
19	26.08	47.50	−2	−9	30.12	39.27	+3	−12	35.42	34.59	+6	+2	40.59	35.00	0	+9
20	26.20	47.18	0	−11	30.28	39.05	+5	−9	35.60	34.52	+4	+5	40.75	35.10	−2	+10
21	26.31	46.87	+2	−12	30.44	38.84	+6	−5	35.77	34.46	+2	+8	40.91	35.21	−4	+8
22	26.42	46.56	+4	−11	30.60	38.63	+6	−1	35.95	34.40	0	+10	41.07	35.32	−6	+5
23	26.54	46.25	+5	−8	30.76	38.42	+5	+3	36.13	34.35	−3	+9	41.22	35.44	−6	+1
24	26.66	45.94	+6	−4	30.93	38.21	+3	+7	36.31	34.30	−5	+7	41.37	35.56	−6	−3
25	26.77	45.64	+6	+1	31.09	38.01	+1	+9	36.48	34.26	−6	+4	41.53	35.69	−4	−6
26	26.89	45.34	+4	+5	31.25	37.82	−2	+10	36.66	34.23	−6	0	41.68	35.83	−2	−8
27	27.02	45.04	+2	+8	31.42	37.63	−4	+9	36.84	34.20	−5	−4	41.83	35.97	+1	−8
28	27.14	44.74	0	+10	31.59	37.44	−6	+6	37.01	34.18	−3	−7	41.98	36.12	+4	−6
29	27.27	44.45	−3	+10	31.75	37.26	−6	+3	37.19	34.16	−1	−8	42.12	36.27	+5	−3
30	27.40	44.16	−5	+9	31.92	37.08	−6	−1	37.37	34.15	+2	−7	42.26	36.42	+5	+2
31	27.53	43.88	−6	+6	32.09	36.91	−5	−5	37.54	34.14	+4	−5	42.40	36.58	+4	+6
32					32.26	36.74	−3	−7					42.54	36.75	+2	+10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+81° 37′ 30″	6.865	+6.793	+81° 37′ 40″	6.868	+6.795	+81° 37′ 50″	6 870	+6.797
40	6.868	+6.795	50	6.870	+6.797	60	6.873	+6.799

$\alpha_{1931.0} = 9^h\ 27^m\ 23^s.94$ $\delta_{1931.0} = +81°\ 38'\ 1''.34$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis $5^m.34$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$10^h\ 22^m$	+82° 54′	in $0^s.01$ $0''.01$	$10^h\ 23^m$	+82° 54′	in $0^s.01$ $0''.01$	$10^h\ 23^m$	+82° 54′	in $0^s.01$ $0''.01$	$10^h\ 23^m$	+82° 54′	in $0^s.01$ $0''.01$
1	59.04	27.93	−6 +9	3.60	33.70	−4 −7	5.19	42.09	+1 −8	3.73	50.95	+6 +4
2	59.22	28.04	−7 +5	3.70	33.96	0 −9	5.19	42.40	+4 −7	3.64	51.19	+4 +7
3	59.40	28.15	−7 0	3.80	34.22	+3 −9	5.19	42.70	+6 −4	3.54	51.43	+1 +9
4	59.58	28.27	−5 −5	3.90	34.48	+6 −7	5.19	43.01	+7 +1	3.44	51.67	−2 +8
5	59.75	28.39	−2 −8	3.99	34.75	+7 −3	5.18	43.31	+6 +5	3.34	51.90	−4 +5
6	59.92	28.52	+1 −10	4.08	35.02	+7 +2	5.17	43.61	+3 +7	3.23	52.13	−5 0
7	60.09	28.66	+4 −9	4.17	35.29	+5 +5	5.15	43.92	0 +8	3.12	52.36	−5 −4
8	60.26	28.80	+7 −5	4.25	35.56	+2 +7	5.13	44.22	−2 +6	3.01	52.58	−3 −8
9	60.43	28.95	+7 −1	4.33	35.84	−1 +7	5.11	44.52	−4 +3	2.90	52.80	−1 −11
10	60.60	29.10	+6 +3	4.40	36.12	−3 +5	5.09	44.83	−5 −2	2.79	53.01	+1 −12
11	60.76	29.26	+4 +6	4.47	36.40	−5 +1	5.06	45.13	−5 −6	2.68	53.22	+3 −11
12	60.92	29.42	+1 +8	4.54	36.69	−5 −3	5.03	45.43	−3 −9	2.56	53.42	+5 −8
13	61.08	29.59	−2 +7	4.61	36.98	−4 −7	5.00	45.73	−1 −11	2.44	53.62	+6 −4
14	61.24	29.77	−4 +4	4.67	37.27	−2 −10	4.96	46.02	+2 −11	2.32	53.81	+6 0
15	61.39	29.95	−5 0	4.73	37.56	0 −11	4.92	46.32	+4 −10	2.19	54.00	+5 +4
16	61.54	30.13	−5 −4	4.79	37.85	+3 −10	4.87	46.61	+5 −7	2.07	54.19	+3 +8
17	61.69	30.32	−4 −8	4.84	38.14	+5 −8	4.82	46.90	+6 −2	1.94	54.37	0 +10
18	61.84	30.52	−2 −10	4.89	38.44	+6 −5	4.77	47.19	+5 +2	1.81	54.55	−2 +11
19	61.98	30.72	+1 −10	4.93	38.74	+6 0	4.71	47.47	+4 +6	1.68	54.72	−5 +10
20	62.12	30.92	+3 −9	4.97	39.04	+5 +4	4.65	47.76	+2 +9	1.55	54.89	−7 +7
21	62.26	31.13	+5 −7	5.01	39.34	+3 +8	4.59	48.04	−1 +11	1.41	55.05	−7 +3
22	62.39	31.34	+6 −3	5.04	39.65	+1 +11	4.53	48.32	−4 +11	1.28	55.21	−6 −2
23	62.52	31.56	+6 +1	5.07	39.95	−2 +12	4.46	48.60	−6 +9	1.14	55.36	−4 −6
24	62.65	31.78	+4 +6	5.10	40.26	−5 +11	4.39	48.87	−7 +6	1.00	55.50	−1 −8
25	62.78	32.01	+2 +9	5.12	40.56	−7 +9	4.32	49.14	−7 +1	0.86	55.64	+2 −8
26	62.91	32.24	0 +12	5.14 5.16	40.87 41.17	−8 +5 −7 0	4.24	49.40	−6 −3	0.72	55.78	+5 −6
27	63.03	32.47	−3 +12	5.17	41.48	−5 −4	4.16	49.67	−3 −6	0.58	55.91	+6 −2
28	63.15	32.71	−6 +10	5.18	41.78	−2 −7	4.08	49.93	0 −8	0.44	56.03	+6 +3
29	63.27	32.95	−7 +7	5.19	42.09	+1 −8	4.00	50.19	+3 −7	0.29	56.15	+5 +7
30	63.38	33.20	−7 +2				3.91	50.45	+5 −4	0.15	56.27	+2 +9
31	63.49	33.45	−6 −3				3.82	50.70	+6 0	0.00	56.38	−1 +9
32	63.60	33.70	−4 −7				3.73	50.95	+6 +4			

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 54′ 20″	8.097	+8.035	+82° 54′ 30″	8.100	+8.038	+82° 54′ 50″	8.106	+8.044
30	8.100	+8.038	40	8.103	+8.041	60	8.109	+8.048

$\alpha_{1931.0} = 10^h\ 22^m\ 49^s.82$ $\delta_{1931.0} = +82°\ 54'\ 39''.83$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis $5^m.34$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$10^h\ 22^m$	+82° 54′	in 0.01ˢ 0.01″	$10^h\ 22^m$	+82° 54′	in 0.01ˢ 0.01″	$10^h\ 22^m$	+82° 54′	in 0.01ˢ 0.01″	$10^h\ 22^m$	+82° 54′	in 0.01ˢ 0.01″
1	60.00	56.38	−1 +9	55.31	56.94	−5 −4	51.37	52.45	0 −12	48.99	43.76	+6 −2
2	59.85	56.48	−3 +7	55.16	56.87	−3 −8	51.26	52.22	+3 −11	48.95	43.43	+5 +2
3	59.71	56.58	−5 +3	55.01	56.79	−1 −11	51.16	51.99	+5 −8	48.92	43.10	+4 +6
4	59.56	56.67	−5 −2	54.87	56.71	+1 −11	51.05	51.76	+6 −5	48.88	42.76	+2 +9
5	59.41	56.76	−4 −6	54.72	56.62	+4 −10	50.95	51.52	+6 0	48.85	42.42	−1 +11
6	59.26	56.84	−2 −10	54.58	56.52	+5 −7	50.85	51.28	+5 +4	48.82	42.08	−4 +11
7	59.11	56.92	0 −12	54.43	56.42	+6 −3	50.75	51.04	+3 +8	48.79	41.74	−6 +9
8	58.96	56.99	+3 −11	54.29	56.31	+6 +1	50.65	50.79	+1 +10	48.77	41.40	−7 +5
9	58.81	57.05	+5 −9	54.15	56.20	+4 +5	50.56	50.54	−2 +11	48.75	41.06	−7 +1
10	58.66	57.11	+6 −6	54.01	56.08	+2 +8	50.47	50.28	−5 +10	48.73	40.71	−6 −3
11	58.51	57.16	+6 −2	53.87	55.96	0 +10	50.38	50.02	−7 +7	48.71	40.36	−3 −6
12	58.36	57.21	+5 +3	53.73	55.83	−3 +11	50.29	49.76	−7 +3	48.69	40.01	0 −8
13	58.20	57.25	+4 +7	53.60	55.70	−5 +9	50.21	49.49	−7 −1	48.68	39.66	+3 −8
14	58.05	57.28	+1 +10	53.46	55.56	−7 +6	50.12	49.22	−5 −5	48.67	39.30	+6 −5
15	57.90	57.31	−1 +11	53.33	55.42	−7 +2	50.04	48.94	−2 −8	48.66	38.95	+7 −1
16	57.75	57.34	−4 +10	53.19	55.27	−6 −3	49.96	48.66	+2 −9	48.66	38.59	+6 +3
17	57.59	57.36	−6 +8	53.06	55.11	−3 −7	49.88	48.38	+4 −7	48.66	38.23	+4 +7
18	57.44	57.37	−7 +4	52.93	54.95	0 −9	49.80	48.09	+6 −4	48.66	37.87	+1 +8
19	57.28	57.37	−7 0	52.80	54.79	+3 −9	49.73	47.80	+7 +1	48.66	37.51	−2 +8
20	57.13	57.37	−5 −5	52.67	54.62	+5 −6	49.66	47.51	+5 +5	48.67	37.15	−4 +5
21	56.98	57.37	−2 −8	52.54	54.45	+7 −2	49.59	47.21	+3 +8	48.68	36.79	−5 +1
22	56.83	57.36	+1 −9	52.42	54.27	+6 +3	49.52	46.91	0 +9	48.69	36.43	−5 −4
23	56.67	57.34	+4 −7	52.29	54.09	+4 +7	49.46	46.61	−3 +7	48.70	36.06	−4 −8
24	56.52	57.32	+6 −4	52.17	53.90	+2 +9	49.40	46.30	−5 +4	48.72	35.70	−1 −11
25	56.37	57.29	+6 +1	52.05	53.71	−1 +9	49.34	45.99	−5 −1	48.74	35.34	+1 −12
26	56.21	57.26	+5 +5	51.93	53.51	−4 +7	49.28	45.68	−5 −5	48.76	34.97	+4 −10
27	56.06	57.22	+3 +8	51.82	53.31	−6 +3	49.23	45.37	−3 −9	48.78	34.60	+5 −8
28	55.91	57.18	0 +10	51.70	53.10	−6 −2	49.18	45.05	0 −11	*)48.81	34.23	+6 −4
29	55.76	57.13	−3 +8	51.59	52.89	−4 −7	49.13	44.73	+2 −11	48.84	33.86	+6 +1
30	55.61	57.07	−5 +5	51.48	52.67	−2 −10	49.08	44.41	+4 −9	48.87	33.49	+5 +5
31	55.46	57.01	−6 0	51.37	52.45	0 −12	49.03	44.09	+6 −6	48.90	33.12	+3 +8
32	55.31	56.94	−5 −4				48.99	43.76	+6 −2	48.94	32.75	0 +10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 54′ 30″	8.100	+8.038	+82° 54′ 40″	8.103	+8.041	+82° 54′ 50″	8.106	+8.044
40	8.103	+8.041	50	8.106	+8.044	60	8.109	+8.048

$\alpha_{1931.0} = 10^h\ 22^m\ 49^s.82$ $\delta_{1931.0} = +82°\ 54'\ 39''.83$

*) **Tag der doppelten unteren Kulmination: August 28**

Obere Kulmination Greenwich

Nf) 30 Hev. Camelopardalis $5^m.34$

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$10^h\ 22^m$	$+82°\ 54'$	in 0.01^s | $0.01''$	$10^h\ 22^m$	$+82°\ 54'$	in 0.01^s | $0.01''$	$10^h\ 22^m$	$+82°\ 54'$	in 0.01^s | $0.01''$	$10^h\ 23^m$	$+82°\ 54'$	in 0.01^s | $0.01''$
1	$48^s.94$	$32''.75$	0 +10	$51^s.19$	$21''.91$	−6 +8	$55^s.67$	$12''.67$	−4 −6	$1^s.42$	$7''.62$	+4 −6
2	48.98	32.38	−3 +11	51.31	21.57	−7 +4	55.84	12.43	−1 −7	1.62	7.53	+6 −2
3	49.02	32.01	−5 +10	51.42	21.23	−7 0	56.02	12.19	+2 −7	1.82	7.45	+6 +2
4	49.06	31.64	−7 +7	51.54	20.90	−5 −4	56.20	11.96	+5 −5	2.03	7.38	+5 +7
5	49.11	31.27	−7 +3	51.66	20.56	−3 −6	56.38	11.73	+6 0	2.23	7.32	+2 +10
6	49.16	30.90	−6 −1	51.78	20.23	0 −7	56.56	11.51	+5 +4	2.43	7.26	−1 +10
7	49.21	30.53	−4 −5	51.90	19.90	+3 −6	56.74	11.29	+4 +8	2.63	7.21	−3 +9
8	49.26	30.16	−1 −7	52.03	19.57	+5 −3	56.93	11.08	+1 +10	2.83	7.16	−5 +5
9	49.32	29.79	+2 −7	52.16	19.25	+6 +1	57.11	10.87	−2 +10	3.04	7.12	−6 0
10	49.38	29.43	+5 −5	52.29	18.93	+5 +5	57.30	10.67	−4 +7	3.24	7.08	−5 −5
11	49.44	29.06	+6 −2	52.42	18.61	+3 +8	57.49	10.47	−6 +2	3.44	7.05	−3 −9
12	49.50	28.69	+6 +2	52.56	18.29	0 +9	57.67	10.27	−5 −3	3.64	7.03	0 −12
13	49.57	28.32	+5 +6	52.69	17.98	−3 +8	57.86	10.08	−4 −8	3.84	7.01	+3 −12
14	49.64	27.96	+2 +8	52.83	17.67	−5 +4	58.05	9.90	−2 −11	4.04	7.00	+5 −10
15	49.71	27.59	−1 +8	52.97	17.36	−5 0	58.24	9.72	+1 −12	4.24	6.99	+6 −7
16	49.78	27.23	−3 +6	53.11	17.05	−5 −5	58.44	9.55	+4 −12	4.44	6.99	+7 −2
17	49.86	26.86	−5 +2	53.26	16.75	−3 −10	58.64	9.38	+6 −9	4.64	7.00	+6 +2
18	49.94	26.50	−5 −2	53.41	16.45	0 −12	58.83	9.22	+7 −5	4.84	7.01	+4 +6
19	50.02	26.14	−4 −7	53.56	16.16	+2 −12	59.03	9.07	+6 −1	5.04	7.03	+2 +8
20	50.10	25.78	−2 −11	53.71	15.87	+5 −11	59.22	8.92	+5 +4	5.23	7.06	−1 +10
21	50.19	25.42	0 −12	53.86	15.58	+6 −8	59.42	8.77	+3 +7	5.43	7.09	−4 +9
22	50.28	25.06	+3 −12	54.02	15.30	+7 −3	59.62	8.63	+1 +9	5.62	7.13	−6 +7
23	50.37	24.70	+5 −9	54.17	15.02	+6 +1	59.82	8.50	−2 +10	5.82	7.17	−7 +4
24	50.46	24.35	+6 −6	54.33	14.74	+4 +5	60.01	8.37	−5 +9	6.01	7.22	−7 0
25	50.56	24.00	+6 −1	54.49	14.47	+2 +8	60.21	8.24	−6 +6	6.20	7.28	−5 −4
26	50.66	23.64	+5 +3	54.65	14.20	0 +10	60.41	8.12	−7 +3	6.39	7.34	−3 −7
27	50.76	23.29	+4 +7	54.82	13.93	−3 +10	60.61	8.01	−6 −1	6.58	7.41	0 −8
28	50.86	22.94	+1 +10	54.98	13.67	−5 +8	60.81	7.90	−5 −5	6.77	7.48	+3 −8
29	50.97	22.59	−2 +11	55.15	13.41	−7 +5	61.01	7.80	−2 −7	6.96	7.56	+5 −5
30	51.08	22.25	−4 +10	55.32	13.16	−7 +1	61.21	7.71	+1 −8	7.14	7.65	+6 0
31	51.19	21.91	−6 +8	55.49	12.91	−6 −3	61.42	7.62	+4 −6	7.32	7.75	+6 +4
32				55.67	12.67	−4 −6				7.50	7.85	+4 +8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 54′ 0″	8.091	+8.029	+82° 54′ 10″	8.094	+8.032	+82° 54′ 30″	8.100	+8.038
10	8.094	+8.032	20	8.097	+8.035	40	8.103	+8.041

$\alpha_{1931.0} = 10^h\ 22^m 49^s.82$ $\delta_{1931.0} = +82°\ 54'\ 39''.83$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ng) ε Ursae minoris $4^{m}.40$

Tag	Januar			Februar			März			April		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$16^h 52^m$	+82° 8′	in 0.01s 0.01″	$16^h 52^m$	+82° 8′	in 0.01s 0.01″	$16^h 52^m$	+82° 8′	in 0.01s 0.01″	$16^h 53^m$	+82° 8′	in 0.01s 0.01″
1	51.16s	56.81″	+3 + 8	54.09s	47.79″	−2 + 7	58.27s	43.96″	−3 + 5	3.04s	45.64″	0 −11
2	51.22	56.47	+1 +11	54.22	47.57	−3 + 2	58.43	43.92	−3 − 1	3.18	45.79	+2 −11
3	51.28	56.13	0 +11	54.35	47.36	−3 − 3	58.59	43.88	−2 − 6	3.32	45.95	+3 − 8
4	51.34	55.79	−2 + 9	54.48	47.15	−2 − 8	58.75	43.85	−1 −10	3.45	46.12	+3 − 4
5	51.40	55.45	−3 + 5	54.62	46.95	0 −11	58.91	43.83	+1 −12	3.58	46.29	+2 + 2
6	51.47	55.12	−3 0	54.76	46.75	+1 −11	59.07	43.81	+2 −10	3.71	46.46	+1 + 6
7	51.54	54.79	−3 − 5	54.90	46.56	+2 − 9	59.23	43.80	+2 − 7	3.84	46.64	0 + 9
8	51.61	54.46	−1 −10	55.04	46.38	+3 − 5	59.39	43.80	+3 − 2	3.97	46.83	−2 +10
9	51.68	54.14	0 −12	55.18	46.20	+2 0	59.55	43.80	+2 + 3	4.10	47.02	−3 + 8
10	51.75	53.82	+1 −11	55.33	46.03	+1 + 5	59.71	43.81	+1 + 7	4.22	47.21	−4 + 5
11	51.83	53.50	+2 − 8	55.48	45.87	0 + 8	59.87	43.83	−1 +10	4.34	47.41	−4 + 1
12	51.91	53.18	+3 − 3	55.62	45.71	−1 +10	60.03	43.85	−2 +10	4.46	47.62	−3 − 3
13	52.00	52.87	+2 + 2	55.77	45.56	−3 + 9	60.19	43.88	−3 + 7	4.58	47.83	−2 − 7
14	52.09	52.56	+1 + 7	55.92	45.41	−3 + 6	60.34	43.92	−4 + 4	4.69	48.05	−1 − 9
15	52.18	52.26	0 + 9	56.07	45.27	−4 + 2	60.50	43.96	−4 0	4.81	48.27	0 −10
16	52.27	51.96	−2 +10	56.22	45.13	−3 − 1	60.65	44.01	−3 − 4	4.92	48.49	+2 − 9
17	52.37	51.67	−3 + 8	56.38	45.00	−2 − 5	60.81	44.06	−2 − 7	5.03	48.72	+3 − 7
18	52.47	51.38	−3 + 5	56.53	44.88	−1 − 8	60.96	44.12	0 − 9	5.14	48.95	+4 − 3
19	52.57	51.09	−4 + 1	56.68	44.76	0 −10	61.12	44.19	+1 −10	5.24	49.18	+4 + 2
20	52.67	50.81	−3 − 3	56.84	44.65	+2 − 9	61.27	44.27	+2 − 8	5.35	49.42	+3 + 6
21	52.78	50.53	−2 − 6	57.00	44.55	+3 − 7	61.43	44.35	+3 − 5	5.45	49.66	+2 + 9
22	52.89	50.26	0 − 9	57.16	44.45	+4 − 4	61.58	44.44	+4 − 1	5.55	49.91	+1 +11
23	53.00	49.99	+1 −10	57.31	44.36	+4 + 1	61.73	44.53	+4 + 3	5.65	50.16	−1 +11
24	53.11	49.72	+2 − 9	57.47	44.28	+4 + 5	61.88	44.63	+3 + 8	5.74	50.41	−2 + 8
25	53.23	49.46	+3 − 6	57.63	44.20	+3 + 9	62.03	44.74	+2 +11	5.83	50.67	−3 + 4
26	53.35	49.21	+4 − 2	57.79	44.13	+1 +11	62.18	44.85	0 +12	5.92	50.93	−2 − 2
27	53.47	48.96	+4 + 2	57.95	44.07	0 +11	62.32	44.97	−1 +10	6.01	51.20	−2 − 7
28	53.59	48.71	+3 + 7	58.11	44.01	−2 + 9	62.47	45.09	−2 + 7	6.10	51.47	0 −10
29	53.71	48.47	+2 +10	58.27	43.96	−3 + 5	62.61	45.22	−3 + 1	6.18	51.74	+1 −11
30	53.83	48.24	0 +12				62.76	45.35	−2 − 4	6.26	52.01	+2 − 9
31	53.96	48.01	−1 +11				62.90	45.49	−1 − 9	6.33	52.29	+3 − 5
32	54.09	47.79	−2 + 7				63.04	45.64	0 −11			

δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 8′ 40″	7.317	+7.248	+82° 8′ 50″	7.319	+7.250
50	7.319	+7.250	60	7.322	+7.253

$\alpha_{1931.0} = 16^h\ 52^m\ 58^s.35$ $\delta_{1931.0} = +82°\ 9'\ 13''.02$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ng) ε Ursae minoris $4^m.40$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder
	$16^h 53^m$	$+82°8'$	in $0^s.01$ | $0''.01$	$16^h 53^m$	$+82°9'$	in $0^s.01$ | $0''.01$
1	6.33	52.29	+3 −5	7.38	1.80	0 +10
2	6.40	52.57	+3 0	7.37	2.11	−2 +10
3	6.47	52.85	+2 +4	7.36	2.43	−3 +8
4	6.54	53.13	0 +8	7.34	2.75	−4 +5
5	6.61	53.42	−1 +10	7.32 / 7.30	3.06 / 3.38	−4 0 / −3 −4
6	6.68	53.71	−3 +9	7.28	3.70	−2 −7
7	6.74	54.00	−4 +7	7.25	4.01	−1 −9
8	6.80	54.30	−4 +3	7.22	4.33	+1 −10
9	6.86	54.60	−4 −1	7.19	4.64	+2 −9
10	6.91	54.90	−3 −5	7.16	4.96	+3 −6
11	6.96	55.20	−2 −8	7.12	5.27	+4 −2
12	7.01	55.51	0 −10	7.08	5.57	+3 +3
13	7.05	55.81	+1 −10	7.03	5.88	+3 +7
14	7.09	56.12	+3 −8	6.98	6.19	+1 +10
15	7.13	56.43	+3 −5	6.93	6.49	0 +11
16	7.17	56.74	+4 0	6.88	6.79	−1 +10
17	7.20	57.05	+3 +4	6.83	7.10	−3 +7
18	7.23	57.36	+2 +8	6.77	7.40	−3 +2
19	7.26	57.67	+1 +11	6.71	7.69	−3 −3
20	7.29	57.99	0 +11	6.65	7.99	−2 −8
21	7.31	58.30	−2 +10	6.59	8.28	0 −11
22	7.33	58.62	−3 +6	6.52	8.56	+1 −11
23	7.35	58.93	−3 0	6.45	8.85	+3 −9
24	7.36	59.25	−2 −5	6.38	9.14	+3 −5
25	7.37	59.57	−1 −9	6.30	9.42	+3 +1
26	7.38	59.89	+1 −10	6.22	9.70	+2 +5
27	7.39	60.20	+2 −10	6.14	9.99	0 +9
28	7.40	60.52	+3 −7	6.06	10.27	−1 +10
29	7.40	60.84	+3 −2	5.97	10.54	−3 +9
30	7.40	61.16	+2 +3	5.89	10.81	−3 +6
31	7.39	61.48	+1 +7	5.80	11.08	−4 +2
32	7.38	61.80	0 +10			

Tag	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$16^h 53^m$	$+82°9'$	in $0^s.01$ | $0''.01$	$16^h 52^m$	$+82°9'$	in $0^s.01$ | $0''.01$
1	5.80	11.08	−4 +2	61.97	17.65	0 −10
2	5.71	11.34	−3 −2	61.82	17.80	+1 −10
3	5.62	11.60	−2 −6	61.66	17.94	+2 −8
4	5.52	11.86	−1 −9	61.51	18.08	+3 −5
5	5.42	12.12	0 −10	61.36	18.21	+4 −1
6	5.32	12.37	+2 −9	61.20	18.34	+4 +4
7	5.22	12.62	+3 −7	61.04	18.47	+3 +8
8	5.11	12.87	+4 −4	60.88	18.59	+1 +11
9	5.00	13.11	+4 +1	60.72	18.71	0 +12
10	4.89	13.35	+3 +5	60.56	18.82	−1 +10
11	4.78	13.58	+2 +9	60.40	18.92	−2 +6
12	4.66	13.81	+1 +11	60.23	19.02	−3 +1
13	4.54	14.04	−1 +11	60.07	19.12	−2 −4
14	4.42	14.27	−2 +9	59.90	19.21	−1 −9
15	4.30	14.49	−3 +4	59.74	19.29	0 −11
16	4.18	14.71	−3 −1	59.57	19.37	+1 −11
17	4.06	14.92	−2 −6	59.40	19.45	+2 −8
18	3.93	15.13	−1 −10	59.23	19.52	+3 −4
19	3.80	15.34	+1 −11	59.06	19.59	+2 +1
20	3.67	15.54	+2 −10	58.89	19.65	+1 +6
21	3.54	15.74	+3 −6	58.72	19.71	0 +9
22	3.41	15.94	+3 −2	58.54	19.76	−2 +10
23	3.27	16.13	+2 +4	58.37	19.81	−3 +9
24	3.13	16.32	+1 +8	58.19	19.85	−4 +5
25	2.99	16.50	−1 +10	58.02	19.89	−4 +1
26	2.85	16.68	−2 +10	57.84	19.92	−3 −3
27	2.71	16.85	−3 +8	57.66	19.95	−2 −7
28	2.57	17.02	−4 +4	57.48	19.97	−1 −9
29	2.42	17.18	−4 −1	57.30	19.99	+1 −10
30	2.27	17.34	−3 −5	57.12	20.00	+2 −9
31	2.12	17.50	−2 −8	56.94	20.01	+3 −6
32	1.97	17.65	0 −10	56.76	20.01	+4 −3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 8′ 50″	7.319	+7.250	+82° 9′ 0″	7.322	+7.253	+82° 9′ 10″	7.324	+7.256
60	7.322	+7.253	10	7.324	+7.256	20	7.327	+7.258

$\alpha_{1931.0} = 16^h\ 52^m\ 58^s.35$ $\delta_{1931.0} = +82°\ 9'\ 13''.02$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ng) ε Ursae minoris $4^m.40$

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	$16^h 52^m$	+82° 9′	in s 0.01 | " 0.01	$16^h 52^m$	+82° 9′	in s 0.01 | " 0.01	$16^h 52^m$	+82° 9′	in s 0.01 | " 0.01	$16^h 52^m$	+82° 8′	in s 0.01 | " 0.01
1	56.76	20.01	+4 −3	51.42	17.72	+2 +9	46.77	10.89	−2 +7	44.21	61.10	−2 −6
2	56.58	20.00	+4 +2	51.25	17.57	+1 +11	46.65	10.60	−2 +3	44.17	60.74	0 −9
3	56.40	19.99	+3 +6	51.08	17.41	0 +12	46.53	10.31	−2 −3	44.13	60.38	+1 −11
4	56.22	19.98	+2 +10	50.91	17.25	−1 +10	46.41	10.02	−1 −7	44.09	60.02	+2 −10
5	56.04	19.96	+1 +12	50.74	17.08	−2 +6	46.29	9.73	0 −10	*)44.06	59.66	+3 −6
6	55.86	19.94	−1 +11	50.58	16.91	−2 0	46.18	9.43	+2 −10	44.03	59.30	+3 −1
7	55.68	19.91	−2 +8	50.41	16.73	−2 −5	46.07	9.13	+3 −8	44.01	58.94	+3 +4
8	55.50	19.88	−3 +4	50.24	16.55	−1 −9	45.96	8.82	+3 −4	43.99	58.57	+1 +8
9	55.32	19.84	−2 −2	50.08	16.36	+1 −11	45.85	8.51	+3 +1	43.97	58.21	0 +10
10	55.14	19.80	−2 −7	49.92	16.17	+2 −10	45.75	8.20	+2 +6	43.95	57.85	−2 +10
11	54.96	19.75	0 −10	49.76	15.97	+3 −7	45.65	7.89	0 +9	43.93	57.48	−3 +8
12	54.78	19.69	+1 −11	49.61	15.77	+3 −2	45.55	7.57	−1 +10	43.92	57.12	−4 +3
13	54.60	19.63	+2 −9	49.45	15.57	+2 +3	45.46	7.25	−3 +9	43.91	56.76	−4 −1
14	54.42	19.57	+3 −5	49.29	15.36	+1 +7	45.37	6.93	−4 +6	43.90	56.39	−3 −6
15	54.24	19.50	+3 −1	49.14	15.15	0 +10	45.28	6.61	−4 +1	43.90	56.03	−2 −9
16	54.06	19.43	+2 +4	48.98	14.93	−2 +10	45.19	6.28	−4 −3	43.90	55.66	0 −10
17	53.88	19.35	0 +8	48.83	14.71	−3 +8	45.10	5.95	−3 −7	43.90	55.29	+1 −10
18	53.70	19.27	−1 +10	48.68	14.48	−4 +4	45.02	5.61	−1 −10	43.91	54.93	+2 −8
19	53.52	19.18	−3 +9	48.53	14.25	−4 0	44.94	5.28	0 −11	43.92	54.57	+3 −5
20	53.35	19.08	−4 +7	48.38	14.01	−3 −5	44.87	4.94	+2 −10	43.94	54.21	+3 −1
21	53.17	18.98	−4 +2	48.24	13.77	−2 −8	44.80	4.60	+3 −7	43.96	53.85	+3 +4
22	52.99	18.88	−4 −2	48.10	13.53	−1 −10	44.73	4.26	+3 −3	43.98	53.49	+2 +8
23	52.81	18.77	−3 −6	47.96	13.28	+1 −10	44.66	3.91	+3 +1	44.00	53.14	+1 +10
24	52.64	18.65	−2 −9	47.82	13.03	+2 −9	44.59	3.57	+3 +5	44.02	52.78	0 +11
25	52.46	18.53	0 −10	47.68	12.78	+3 −6	44.53	3.22	+2 +9	44.05	52.42	−2 +10
26	52.29	18.41	+1 −10	47.54	12.52	+3 −2	44.47	2.87	0 +11	44.08	52.07	−2 +6
27	52.11	18.28	+2 −7	47.41	12.26	+3 +3	44.41	2.52	−1 +11	44.12	51.72	−3 +1
28	51.94	18.15	+3 −4	47.28	11.99	+2 +7	44.36	2.16	−2 +9	44.16	51.37	−2 −4
29	51.76	18.01	+4 0	47.15	11.72	+2 +10	44.31	1.81	−3 +4	44.20	51.02	−1 −8
30	51.59	17.87	+3 +5	47.02	11.45	0 +11	44.26	1.46	−2 −1	44.24	50.68	0 −11
31	51.42	17.72	+2 +9	46.90	11.17	−1 +10	44.21	1.10	−2 −6	44.29	50.34	+2 −10
32				46.77	10.89	−2 +7				44.34	49.99	+3 −8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 8′ 40″	7.317	+7.248	+82° 8′ 50″	7.319	+7.250	+82° 9′ 10″	7.324	+7.256
50	7.319	+7.250	60	7.322	+7.253	20	7.327	+7.258

$\alpha_{1931.0} = 16^h\ 52^m\ 58^s.35$ $\delta_{1931.0} = +82°\ 9'\ 13''.02$

*) Tag der doppelten unteren Kulmination: Dez. 5

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^m.44$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$17^h 54^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 54^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 54^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 54^m$	+86° 36′	in $0^s.01$ | $0''.01$
1	$8^s.00$	$36''.32$	+11 +6	$11^s.56$	$26''.48$	−4 +9	$19^s.49$	$20''.81$	−6 +6	$30^s.37$	$20''.02$	−3 −10
2	8.00	35.97	+7 +9	11.78	26.21	−8 +4	19.83	20.69	−8 +1	30.71	20.10	+1 −11
3	8.01	35.63	+3 +11	12.00	25.94	−9 −1	20.17	20.58	−8 −4	31.05	20.18	+4 −9
4	8.03	35.29	−2 +10	12.23	25.68	−8 −6	20.51	20.47	−6 −9	31.39	20.27	+7 −5
5	8.06	34.94	−7 +7	12.47	25.42	−5 −10	20.85	20.37	−2 −11	31.72	20.36	+7 0
6	8.10	34.60	−9 +2	12.71	25.17	−1 −11	21.19	20.28	+1 −11	32.05	20.46	+6 +5
7	8.15	34.26	−10 −3	12.95	24.92	+2 −10	21.54	20.19	+5 −8	32.38	20.56	+2 +9
8	8.20	33.92	−7 −8	13.20	24.68	+5 −6	21.89	20.10	+7 −3	32.71	20.67	−2 +10
9	8.26	33.58	−4 −11	13.46	24.44	+7 −1	22.24	20.02	+6 +2	33.04	20.79	−6 +10
10	8.33	33.24	0 −11	13.72	24.21	+6 +4	22.59	19.95	+4 +6	33.37	20.91	−9 +8
11	8.41	32.91	+4 −9	13.99	23.98	+3 +8	22.94	19.89	+1 +10	33.69	21.04	−10 +4
12	8.49	32.58	+7 −4	14.26	23.76	0 +10	23.30	19.83	−3 +11	34.01	21.18	−11 0
13	8.58	32.25	+7 +1	14.54	23.54	−4 +10	23.65	19.78	−7 +10	34.32	21.32	−9 −4
14	8.68	31.92	+5 +5	14.82	23.33	−7 +8	24.01	19.73	−9 +7	34.63	21.46	−6 −8
15	8.78	31.60	+2 +9	15.10	23.12	−9 +5	24.36	19.69	−10 +3	34.94	21.61	−2 −10
16	8.89	31.27	−1 +10	15.39	22.92	−10 +1	24.72	19.66	−10 −2	35.25	21.77	+2 −10
17	9.01	30.95	−5 +10	15.68	22.72	−9 −3	25.08	19.64	−8 −5	35.55	21.93	+6 −9
18	9.13	30.63	−8 +7	15.98	22.53	−6 −7	25.43	19.62	−5 −8	35.85	22.09	+9 −6
19	9.26	30.31	−9 +4	16.28	22.35	−3 −9	25.79	19.61	0 −10	36.14	22.26	+11 −1
20	9.40	29.99	−9 −1	16.59	22.17	+1 −10	26.15	19.60	+4 −10	36.43	22.44	+11 +3
21	9.54	29.68	−8 −5	16.90	22.00	+6 −9	26.50	19.60	+8 −8	36.72	22.62	+9 +7
22	9.69	29.37	−5 −8	17.21	21.83	+9 −6	26.86	19.61	+11 −4	37.00	22.81	+6 +10
23	9.85	29.07	−1 −10	17.53	21.67	+11 −2	27.22	19.62	+12 0	37.28	23.00	+1 +11
24	10.02	28.77	+3 −10	17.85	21.51	+12 +2	27.57	19.64	+11 +5	37.55	23.20	−3 +9
25	10.19	28.47	+7 −8	18.17	21.36	+11 +7	27.92	19.67	+8 +9	37.82	23.40	−6 +5
26	10.37	28.17	+11 −5	18.50	21.21	+7 +10	28.28	19.70	+4 +11	38.08	23.60	−8 0
27	10.55	27.88	+12 −1	18.83	21.07	+3 +11	28.63	19.74	0 +11	38.34	23.81	−7 −5
28	10.74	27.59	+12 +4	19.16	20.94	−2 +10	28.98	19.78	−4 +8	38.59	24.02	−5 −9
29	10.93	27.31	+9 +8	19.49	20.81	−6 +6	29.33	19.83	−7 +3	38.84	24.24	−1 −11
30	11.13	27.03	+5 +11				29.68	19.89	−8 −2	39.09	24.46	+3 −10
31	11.34	26.75	0 +11				30.02	19.95	−6 −7	39.33	24.69	+7 −7
32	11.56	26.48	−4 +9				30.37	20.02	−3 −10			

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 10″	16.875	+16.846	+86° 36′ 20″	16.889	+16.860	+86° 36′ 30″	16.903	+16.873
20	16.889	+16.860	30	16.903	+16.873	40	16.917	+16.887

$\alpha_{1931.0} = 17^h\ 54^m\ 28^s.40 \qquad \delta_{1931.0} = +86°\ 36'\ 48''.22$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^m.44$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
	$17^h 54^m$	+86° 36′	in 0.01s	in 0.01″	$17^h 54^m$	+86° 36′	in 0.01s	in 0.01″	$17^h 54^m$	+86° 36′	in 0.01s	in 0.01″	$17^h 54^m$	+86° 36′	in 0.01s	in 0.01″
1	39.33	24.69	+7	−7	43.99	33.31	+3	+9	42.63	43.09	−10	+5	35.52	51.46	−4	−9
2	39.56	24.92	+8	−2	44.04	33.62	−2	+11	42.48	43.39	−10	0	35.21	51.68	0	−10
3	39.79	25.16	+7	+3	44.09	33.93	−6	+10	42.33	43.69	−9	−4	34.90	51.90	+4	−9
4	40.02	25.40	+4	+7	44.13	34.25	−9	+7	42.17	43.99	−6	−7	34.58	52.12	+8	−7
5	40.24	25.64	0	+10	44.16	34.56	−10	+3	42.01	44.29	−3	−10	34.26	52.33	+10	−4
6	40.45	25.89	−4	+11	44.19	34.88	−10	−1	41.84	44.59	+1	−10	33.93	52.54	+11	+1
7	40.66	26.14	−8	+9	44.21	35.19	−8	−5	41.67	44.89	+5	−9	33.60	52.75	+11	+5
8	40.86	26.39	−10	+6	44.22	35.51	−5	−8	41.49	45.18	+9	−6	33.26	52.95	+8	+9
9	41.06	26.65	−11	+1	44.23	35.83	−1	−10	41.30	45.47	+11	−2	32.92	53.15	+4	+11
10	41.25	26.91	−10	−3	44.23	36.15	+3	−10	41.11	45.76	+11	+3	32.58	53.35	0	+10
11	41.44	27.17	−7	−7	44.23	36.47	+7	−8	40.91	46.05	+9	+7	32.23	53.54	−4	+8
12	41.62	27.44	−4	−9	44.22	36.79	+9	−5	40.71	46.34	+6	+10	31.88	53.72	−7	+3
13	41.80	27.71	0	−10	44.20	37.11	+11	0	40.50	46.62	+2	+11	31.52	53.90	−8	−2
14	41.97	27.98	+4	−9	44.17	37.43	+10	+4	40.29	46.90	−3	+10	31.16	54.08	−7	−7
15	42.13	28.26	+8	−7	44.14	37.75	+8	+8	40.07	47.18	−7	+6	30.80	54.26	−4	−10
16	42.29	28.54	+10	−3	44.10	38.07	+4	+11	39.84	47.45	−9	+1	30.43	54.43	0	−11
17	42.44	28.82	+11	+1	44.06	38.39	0	+11	39.61	47.72	−8	−4	30.06	54.59	+4	−9
18	42.59	29.10	+10	+6	44.01	38.70	−5	+9	39.37	47.99	−6	−9	29.69	54.75	+7	−5
19	42.73	29.39	+7	+9	43.95	39.02	−8	+4	39.13	48.26	−2	−11	29.31	54.91	+7	0
20	42.86	29.68	+3	+11	43.88	39.34	−9	−1	38.88	48.52	+2	−11	28.93	55.06	+6	+5
21	42.99	29.97	−2	+10	{43.81 43.73	39.66 39.97	−8 −5	−6 −10	38.63	48.78	+6	−8	28.55	55.21	+3	+9
22	43.11	30.26	−6	+7	43.65	40.29	−1	−11	38.37	49.04	+8	−3	28.17	55.35	−1	+11
23	43.22	30.56	−8	+2	43.56	40.61	+4	−10	38.11	49.30	+8	+2	27.78	55.49	−6	+10
24	43.33	30.86	−8	−3	43.46	40.92	+7	−6	37.84	49.55	+5	+7	27.39	55.62	−9	+8
25	43.43	31.16	−6	−8	43.36	41.23	+8	−1	37.57	49.80	+2	+10	27.00	55.75	−11	+4
26	43.53	31.46	−2	−11	43.25	41.54	+7	+4	37.29	50.05	−3	+11	26.60	55.88	−11	−1
27	43.62	31.77	+2	−11	43.14	41.85	+4	+8	37.01	50.29	−7	+9	26.20	56.00	−9	−5
28	43.71	32.07	+6	−9	43.02	42.16	0	+10	36.72	50.53	−9	+6	25.80	56.12	−6	−8
29	43.79	32.38	+8	−4	42.90	42.47	−4	+10	36.43	50.77	−11	+2	25.40	56.23	−2	−10
30	43.86	32.69	+8	+1	42.77	42.78	−8	+8	36.13	51.00	−10	−2	24.99	56.34	+2	−10
31	43.93	33.00	+6	+6	42.63	43.09	−10	+5	35.83	51.23	−8	−6	24.58	56.44	+6	−8
32	43.99	33.31	+3	+9					35.52	51.46	−4	−9	24.17	56.54	+9	−5

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 20″	16.889	+16.860	+86° 36′ 30″	16.903	+16.873	+86° 36′ 50″	16.931	+16.901
30	16.903	+16.873	40	16.917	+16.887	60	16.945	+16.915

$\alpha_{1931.0} = 17^h\ 54^m\ 28^s.40$ $\delta_{1931.0} = +86°\ 36'\ 48''.22$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nh) δ Ursae minoris $4^m.44$

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	$17^h 54^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 53^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 53^m$	+86° 36′	in $0^s.01$ | $0''.01$	$17^h 53^m$	+86° 36′	in $0^s.01$ | $0''.01$
1	$24^s.17$	$56''.54$	+9 −5	$71^s.27$	$57''.30$	+10 +6	$58^s.63$	$53''.42$	−3 +8	$49^s.74$	$45''.71$	−7 −4
2	23.76	56.63	+11 −1	70.84	57.25	+7 +9	58.26	53.22	−6 +4	49.53	45.40	−4 −8
3	23.34	56.72	+11 +4	70.41	57.19	+3 +11	57.90	53.02	−7 −1	49.33	45.09	−1 −11
4	22.93	56.81	+9 +8	69.98	57.13	−1 +10	57.54	52.81	−6 −6	49.13	44.78	+4 −11
5	22.51	56.89	+6 +10	69.55	57.06	−4 +7	57.19	52.60	−3 −10	48.94	44.46	+7 −8
6	22.09	56.97	+2 +11	69.12	56.99	−7 +2	56.84	52.38	+1 −11	48.75	44.14	+9 −3
7	21.67	57.04	−2 +9	68.69	56.91	−7 −3	56.50	52.16	+5 −10	48.57	43.82	+9 +2
8	21.25	57.11	−6 +5	68.26	56.83	−5 −8	56.16	51.94	+8 −6	48.40	43.50	+6 +7
9	20.82	57.17	−7 0	67.83	56.74	−2 −11	55.82	51.71	+9 −1	48.24	43.17	+2 +10
10	20.39	57.23	−7 −5	67.41	56.65	+2 −11	55.49	51.47	+8 +4	48.08	42.85	−3 +11
11	19.97	57.28	−5 −9	66.98	56.56	+6 −9	55.16	51.23	+4 +8	47.93	42.52	−7 +10
12	19.54	57.33	−1 −11	66.56	56.46	+8 −4	54.84	50.99	0 +11	47.78	42.19	−10 +6
13	19.11	57.37	+3 −11	66.14	56.35	+8 +1	54.52	50.75	−5 +11	47.64	41.86	−12 +2
14	18.68	57.41	+6 −7	65.72	56.24	+6 +6	54.21	50.50	−9 +8	47.51	41.53	−11 −3
15	18.25	57.44	+7 −2	65.31	56.13	+2 +9	53.90	50.24	−11 +4	47.39	41.19	−8 −7
16	17.82	57.47	+7 +3	64.89	56.01	−3 +11	53.60	49.98	−12 0	47.27	40.85	−5 −9
17	17.38	57.49	+4 +8	64.48	55.88	−7 +10	53.30	49.72	−10 −5	47.16	40.52	−1 −10
18	16.95	57.51	0 +10	64.07	55.75	−10 +7	53.01	49.46	−7 −8	47.06	40.18	+4 −9
19	16.51	57.53	−4 +11	63.66	55.62	−12 +3	52.72	49.19	−3 −10	46.96	39.84	+7 −7
20	16.08	57.54	−8 +9	63.26	55.48	−11 −2	52.44	48.92	+1 −10	*)46.87	39.50	+9 −3
21	15.64	57.54	−10 +5	62.86	55.33	−9 −6	52.17	48.64	+5 −8	46.79	39.15	+10 +1
22	15.20	57.54	−11 +1	62.46	55.18	−6 −9	51.90	48.36	+8 −5	46.72	38.81	+9 +6
23	14.77	57.53	−10 −3	62.06	55.03	−2 −10	51.64	48.08	+10 −1	46.66	38.47	+7 +9
24	14.33	57.52	−8 −7	61.66	54.87	+3 −10	51.38	47.79	+10 +3	46.60	38.12	+3 +11
25	13.89	57.50	−4 −9	61.27	54.70	+6 −7	51.13	47.50	+8 +7	46.55	37.78	−1 +10
26	13.46	57.48	0 −10	60.88	54.53	+9 −4	50.88	47.21	+5 +10	46.50	37.43	−5 +8
27	13.02	57.45	+4 −9	60.50	54.36	+10 0	50.64	46.92	+1 +11	46.46	37.09	−7 +3
28	12.58	57.42	+8 −6	60.12	54.18	+10 +5	50.41	46.62	−3 +9	46.43	36.74	−8 −2
29	12.15	57.39	+10 −3	59.74	54.00	+8 +8	50.18	46.32	−6 +6	46.41	36.40	−6 −7
30	11.71	57.35	+11 +2	59.37	53.81	+4 +11	49.96	46.02	−8 +1	46.40	36.05	−3 −10
31	11.27	57.30	+10 +6	59.00	53.62	0 +11	49.74	45.71	−7 −4	46.39	35.71	+1 −11
32				58.63	53.42	−3 +8				46.39	35.37	+6 −10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+86° 36′ 30″	16.903	+16.873	+86° 36′ 40″	16.917	+16.887	+86° 36′ 50″	16.931	+16.901
40	16.917	+16.887	50	16.931	+16.901	60	16.945	+16.915

$\alpha_{1931.0} = 17^h\ 54^m\ 28^s.40$ $\delta_{1931.0} = +86°\ 36'\ 48''.22$

*) Tag der doppelten unteren Kulmination: Dez. 20

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ni) λ Ursae minoris $6^m.55$

Tag	Januar			Februar			März			April		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$18^h 44^m$	$+89° 1'$	in 0.01^s $0.01''$	$18^h 44^m$	$+89° 1'$	in 0.01^s $0.01''$	$18^h 44^m$	$+89° 1'$	in 0.01^s $0.01''$	$18^h 45^m$	$+89° 1'$	in 0.01^s $0.01''$
1	$11^s.74$	$60''.38$	+45 + 3	$14^s.85$	$50''.30$	−10 + 9	$36^s.63$	$43''.37$	−18 + 7	$12^s.47$	$40''.55$	−21 − 9
2	*)11.45	60.05	+36 + 7	15.35	50.00	−26 + 6	37.65	43.19	−30 + 3	13.68	40.56	− 7 −11
3	11.19	59.72	+19 +10	15.87	49.71	−36 + 1	38.69	43.01	−35 − 2	14.90	40.57	+ 9 −10
4	10.95	59.38	− 1 +11	16.42	49.41	−37 − 4	39.74	42.84	−31 − 7	16.11	40.59	+21 − 7
5	10.74	59.05	−20 + 8	16.99	49.12	−29 − 8	40.81	42.68	−19 −10	17.31	40.62	+28 − 2
6	10.56	58.72	−34 + 4	17.58	48.83	−15 −11	41.88	42.52	− 3 −11	18.52	40.65	+26 + 3
7	10.40	58.39	−40 − 1	18.19	48.55	+ 1 −10	42.97	42.37	+12 − 9	19.72	40.69	+17 + 8
8	10.27	58.05	−36 − 6	18.83	48.27	+15 − 7	44.07	42.22	+23 − 5	20.92	40.73	+ 3 +11
9	10.16	57.72	−25 −10	19.48	47.99	+24 − 3	45.18	42.08	+26 0	22.11	40.78	−13 +11
10	10.08	57.38	− 8 −11	20.16	47.72	+25 + 2	46.30	41.95	+21 + 5	23.30	40.84	−27 +10
11	10.03	57.05	+ 8 − 9	20.86	47.45	+19 + 7	47.43	41.82	+11 + 9	24.49	40.90	−37 + 6
12	10.00	56.72	+21 − 6	21.58	47.19	+ 7 +10	48.57	41.70	− 3 +11	25.67	40.97	−41 + 2
13	10.00	56.39	+27 − 1	22.32	46.93	− 7 +11	49.72	41.58	−18 +11	26.84	41.04	−38 − 2
14	10.03	56.05	+25 + 4	23.08	46.67	−21 +10	50.87	41.47	−30 + 9	28.01	41.12	−30 − 6
15	10.08	55.72	+17 + 8	23.86	46.42	−32 + 7	52.03	41.37	−38 + 5	29.16	41.21	−17 − 9
16	10.16	55.39	+ 4 +11	24.66	46.17	−37 + 3	53.20	41.27	−39 + 1	30.31	41.30	− 2 −10
17	10.26	55.06	−11 +11	25.48	45.93	−36 − 1	54.38	41.18	−34 − 4	31.45	41.40	+15 −10
18	10.39	54.73	−24 + 9	26.31	45.69	−30 − 5	55.56	41.09	−24 − 7	32.58	41.50	+30 − 7
19	10.55	54.40	−33 + 6	27.17	45.45	−18 − 8	56.75	41.01	−10 −10	33.70	41.61	+40 − 3
20	10.73	54.07	−36 + 1	28.04	45.22	− 3 −10	57.94	40.94	+ 6 −10	34.81	41.72	+44 + 1
21	10.94	53.75	−33 − 3	28.93	45.00	+14 −10	59.14	40.87	+23 − 9	35.92	41.84	+41 + 5
22	11.17	53.43	−25 − 7	29.84	44.78	+30 − 8	60.34	40.81	+37 − 6	37.01	41.96	+30 + 9
23	11.43	53.10	−11 − 9	30.76	44.56	+42 − 5	61.55	40.76	+45 − 2	38.10	42.09	+14 +10
24	11.71	52.78	+ 5 −10	31.70	44.35	+48 0	62.75	40.71	+46 + 2	39.17	42.23	− 4 +10
25	12.02	52.47	+21 −10	32.65	44.14	+46 + 4	63.96	40.67	+40 + 6	40.24	42.37	−20 + 6
26	12.35	52.15	+36 − 7	33.63	43.94	+36 + 8	65.18	40.63	+27 +10	41.29	42.52	−30 + 2
27	12.71	51.84	+46 − 3	34.61	43.74	+20 +10	66.39	40.60	+ 9 +10	42.33	42.67	−32 − 4
28	13.09	51.52	+48 + 1	35.61	43.55	0 +10	67.61	40.58	−10 + 8	43.36	42.83	−25 − 8
29	13.50	51.21	+42 + 6	36.63	43.37	−18 + 7	68.82	40.57	−24 + 5	44.37	42.99	−11 −11
30	13.93	50.91	+29 +10				70.04	40.56	−32 0	45.38	43.16	+ 5 −11
31	14.38	50.60	+10 +11				71.25	40.55	−31 − 6	46.37	43.33	+20 − 8
32	14.85	50.30	−10 + 9				72.47	40.55	−21 − 9			

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 1′ 40″	58.936	+58.927	+89° 1′ 50″	59.104	+59.096	+89° 1′ 60″	59.274	+59.266
50	59.104	+59.096	60	59.274	+59.266	70	59.445	+59.437

$\alpha_{1931.0} = 18^h\ 45^m\ 31^s.03$ $\quad\delta_{1931.0} = +89°\ 2'\ 8''.06$

*) Tag der doppelten unteren Kulmination: Jan. 2

Obere Kulmination Greenwich

Ni) λ Ursae minoris $6^m.55$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$18^h 45^m$	+89° 1′	in 0.01s 0.01″	$18^h 46^m$	+89° 1′	in 0.01s 0.01″	$18^h 45^m$	+89° 2′	in 0.01s 0.01″	$18^h 45^m$	+89° 2′	in 0.01s 0.01″
1	46.37	43.33	+20 − 8	8.80	50.75	+18 + 9	71.87	0.14	−22 +10	53.65	9.96	−24 − 8
2	47.34	43.51	+29 − 4	9.22	51.04	+ 3 +11	71.63	0.47	−34 + 7	52.75	10.23	− 9 −10
3	48.30	43.69	+30 + 1	9.61	51.34	−14 +11	71.36	0.79	−40 + 3	51.84	10.51	+ 8 −10
4	49.24	43.88	+23 + 6	9.99	51.63	−28 + 9	{71.08 {70.77	1.12 1.44	−38 −2} −31 −6}	50.91	10.78	+24 − 9
5	50.18	44.07	+10 +10	10.35	51.93	−38 + 5	70.44	1.76	−18 − 9	49.96	11.04	+37 − 6
6	51.10	44.27	− 6 +11	10.68	52.23	−40 + 1	70.09	2.08	− 3 −10	48.99	11.31	+44 − 2
7	52.00	44.47	−21 +10	11.00	52.53	−37 − 3	69.71	2.40	+14 −10	48.00	11.58	+45 + 3
8	52.89	44.68	−34 + 8	11.29	52.84	−28 − 7	69.32	2.72	+29 − 8	47.00	11.84	+39 + 7
9	53.76	44.89	−40 + 4	11.55	53.14	−13 − 9	68.90	3.04	+40 − 4	45.98	12.10	+25 +10
10	54.61	45.10	−40 − 1	11.80	53.45	+ 3 −10	68.46	3.35	+45 0	44.94	12.36	+ 7 +10
11	55.45	45.32	−34 − 5	12.02	53.76	+19 − 9	68.01	3.67	+42 + 5	43.89	12.61	−11 + 8
12	56.27	45.54	−23 − 8	12.23	54.07	+32 − 7	67.53	3.98	+32 + 8	42.82	12.86	−27 + 5
13	57.08	45.77	− 8 −10	12.41	54.38	+41 − 3	67.02	4.30	+16 +10	41.74	13.10	−34 0
14	57.86	46.00	+ 8 −10	12.56	54.69	+43 + 2	66.50	4.61	− 3 +10	40.64	13.34	−33 − 5
15	58.63	46.24	+24 − 8	12.70	55.01	+38 + 6	65.96	4.92	−20 + 7	39.53	13.58	−24 − 9
16	59.38	46.48	+36 − 5	12.81	55.32	+25 +10	65.39	5.24	−32 + 3	38.40	13.81	− 9 −11
17	60.11	46.72	+43 − 1	12.91	55.64	+ 8 +10	64.81	5.55	−36 − 2	37.25	14.04	+ 7 −10
18	60.83	46.97	+42 + 4	12.98	55.96	−11 + 9	64.20	5.85	−31 − 7	36.09	14.27	+21 − 7
19	61.52	47.22	+34 + 7	13.02	56.28	−26 + 6	63.58	6.16	−19 −10	34.92	14.50	+28 − 2
20	62.20	47.47	+19 +10	13.05	56.60	−34 + 1	62.93	6.46	− 2 −11	33.73	14.72	+27 + 4
21	62.86	47.73	+ 1 +10	13.05	56.92	−34 − 4	62.27	6.77	+15 − 9	32.53	14.94	+18 + 8
22	63.50	47.99	−16 + 8	13.04	57.24	−26 − 9	61.58	7.07	+26 − 5	31.31	15.16	+ 4 +11
23	64.12	48.25	−29 + 4	13.00	57.57	−10 −11	60.88	7.36	+31 0	30.08	15.37	−13 +11
24	64.72	48.52	−34 − 1	12.93	57.89	+ 7 −11	60.15	7.66	+26 + 5	28.84	15.58	−27 +10
25	65.30	48.79	−30 − 6	12.85	58.21	+22 − 8	59.41	7.95	+15 + 9	27.58	15.78	−38 + 6
26	65.86	49.06	−18 −10	12.74	58.53	+31 − 3	58.64	8.25	− 1 +11	26.31	15.98	−41 + 2
27	66.40	49.34	− 1 −11	12.61	58.85	+31 + 2	57.86	8.54	−17 +11	25.02	16.18	−38 − 3
28	66.92	49.61	+15 −10	12.46	59.18	+24 + 7	57.05	8.82	−30 + 8	23.72	16.37	−30 − 7
29	67.42	49.89	+27 − 6	12.29	59.50	+10 +10	56.23	9.11	−38 + 4	22.41	16.56	−16 − 9
30	67.90	50.18	+32 − 1	12.09	59.82	− 7 +11	55.39	9.39	−40 0	21.09	16.74	+ 1 −10
31	68.36	50.46	+29 + 4	11.87	60.14	−22 +10	54.53	9.68	−35 − 5	19.76	16.92	+17 − 9
32	68.80	50.75	+18 + 9				53.65	9.96	−24 − 8	18.42	17.10	+32 − 7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 1′ 40″	58.936	+58.927	+89° 2′ 0″	59.274	+59.266	+89° 2′ 10″	59.445	+59.437
50	59.104	+59.096	10	59.445	+59.437	20	59.617	+59.608

$\alpha_{1931.0} = 18^h\ 45^m\ 31^s.03$ $\delta_{1931.0} = +89°\ 2'\ 8''.06$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Ni) λ Ursae minoris $6^m.55$

Tag	September			Oktober			November			Dezember		
	AR.	Dekl	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$18^h\ 44^m$	$+89°\ 2'$	in 0.01^s $0.01''$	$18^h\ 43^m$	$+89°\ 2'$	in 0.01^s $0.01''$	$18^h\ 43^m$	$+89°\ 2'$	in 0.01^s $0.01''$	$18^h\ 42^m$	$+89°\ 2'$	in 0.01^s $0.01''$
1	$78^s.42$	$17''.10$	+32 − 7	$94^s.25$	$20''.34$	+43 + 4	$46^s.93$	$19''.09$	− 6 + 9	$69^s.20$	$13''.42$	−30 − 3
2	77.06	17.27	+42 − 3	92.70	20.38	+36 + 8	45.49	18.97	−20 + 5	68.19	13.17	−25 − 7
3	75.69	17.44	+46 + 1	91.15	20.41	+22 +10	44.06	18.85	−28 0	67.21	12.91	−12 −11
4	74.32	17.60	+42 + 5	89.60	20.44	+ 6 +10	42.63	18.72	−28 − 5	66.24	12.65	+ 5 −11
5	72.93	17.76	+32 + 9	88.04	20.46	−11 + 8	41.22	18.58	−20 − 9	65.30	12.38	+21 −10
6	71.54	17.92	+16 +10	86.49	20.47	−24 + 4	39.82	18.44	− 5 −11	64.37	12.11	+33 − 5
7	70.13	18.07	− 2 + 9	84.93	20.48	−29 − 2	38.43	18.30	+11 −11	63.46	11.84	+36 0
8	68.71	18.22	−18 + 6	83.37	20.49	−26 − 7	37.05	18.15	+25 − 8	62.58	11.56	+30 + 5
9	67.29	18.36	−29 + 1	81.82	20.49	−16 −10	35.68	17.99	+33 − 3	61.72	11.28	+17 +10
10	65.86	18.50	−31 − 4	80.26	20.48	− 1 −11	34.32	17.83	+33 + 2	60.88	11.00	− 1 +11
11	64.42	18.63	−26 − 8	78.71	20.47	+15 −10	32.98	17.66	+23 + 7	60.06	10.71	−19 +11
12	62.97	18.76	−13 −11	77.15	20.45	+26 − 6	31.65	17.49	+ 8 +11	59.26	10.42	−34 + 8
13	61.51	18.88	+ 2 −11	75.60	20.43	+31 − 1	30.33	17.31	−11 +12	58.49	10.13	−43 + 4
14	60.05	19.00	+17 − 8	74.05	20.41	+27 + 5	29.02	17.13	−27 +10	57.74	9.83	−44 − 1
15	58.57	19.12	+27 − 4	72.51	20.38	+15 + 9	27.73	16.95	−40 + 7	57.01	9.54	−38 − 5
16	57.09	19.23	+28 + 1	70.96	20.34	− 1 +11	26.45	16.76	−45 + 2	56.30	9.24	−26 − 8
17	55.60	19.34	+21 + 6	69.42	20.30	−19 +11	25.18	16.57	−43 − 2	55.62	8.94	−11 −10
18	54.11	19.44	+ 8 +10	67.88	20.26	−34 + 9	23.93	16.37	−35 − 6	54.96	8.63	+ 5 −10
19	52.61	19.54	− 8 +12	66.35	20.21	−43 + 5	22.70	16.17	−21 − 9	54.32	8.33	+21 − 8
20	51.11	19.63	−24 +11	64.82	20.15	−45 0	21.48	15.96	− 5 −10	53.71	8.02	+33 − 5
21	49.60	19.72	−37 + 8	63.29	20.09	−40 − 4	20.28	15.75	+11 − 9	53.12	7.71	+40 − 1
22	48.08	19.80	−43 + 3	61.77	20.02	−29 − 7	19.10	15.54	+26 − 7	52.56	7.40	+40 + 3
23	46.56	19.88	−42 − 1	60.26	19.95	−15 −10	17.93	15.32	+36 − 3	52.02	7.08	+33 + 7
24	45.03	19.95	−35 − 5	58.75	19.88	+ 2 −10	16.78	15.10	+41 + 1	51.51	6.76	+20 +10
25	43.50	20.02	−23 − 8	57.25	19.80	+18 − 9	15.64	14.87	+38 + 5	51.02	6.44	+ 4 +10
26	41.97	20.09	− 7 −10	55.75	19.71	+31 − 6	14.52	14.64	+29 + 9	50.55	6.12	−13 + 9
27	40.43	20.15	+10 −10	54.26	19.62	+40 − 2	13.42	14.40	+15 +10	50.11	5.80	−26 + 5
28	38.89	20.20	+25 − 8	52.78	19.53	+42 + 2	12.34	14.16	− 2 +10	49.70	5.48	−32 0
29	37.34	20.25	+37 − 5	51.30	19.43	+37 + 6	11.27	13.92	−17 + 7	49.31	5.15	−30 − 5
30	35.80	20.30	+43 0	49.84	19.32	+26 + 9	10.23	13.67	−27 + 3	48.95	4.83	−20 −10
31	34.25	20.34	+43 + 4	48.38	19.21	+11 +10	9.20	13.42	−30 − 3	48.61	4.50	− 4 −11
32				46.93	19.09	− 6 + 9				48.28	4.17	+13 −11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+89° 2′ 0″	59.274	+59.266	+89° 2′ 10″	59.445	+59.437	+89° 2′ 20″	59.617	+59.608
10	59.445	+59.437	20	59.617	+59.608	30	59.790	+59.781

$\alpha_{1931.0} = 18^h\ 45^m\ 31^s.03$ $\qquad \delta_{1931.0} = +89°\ 2'\ 8''.06$

Nk) 76 Draconis $5^{m}.69$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
	$20^{h}\,47^{m}$	$+82°\,16'$	in $0^{s}.01$	in $0''.01$	$20^{h}\,47^{m}$	$+82°\,16'$	in $0^{s}.01$	in $0''.01$	$20^{h}\,47^{m}$	$+82°\,16'$	in $0^{s}.01$	in $0''.01$	$20^{h}\,47^{m}$	$+82°\,16'$	in $0^{s}.01$	in $0''.01$
1	30.97	41.59	+4	−3	29.08	32.17	+2	+9	29.92	23.24	0	+9	33.30	16.23	−4	−6
2	30.87	41.32	+5	+2	*)29.07	31.84	0	+8	29.99	22.95	−2	+6	33.44	16.09	−3	−9
3	30.77	41.06	+4	+7	29.06	31.51	−2	+5	30.06	22.66	−3	+2	33.58	15.95	−2	−10
4	30.67	40.79	+3	+9	29.05	31.18	−4	+1	30.14	22.38	−4	−3	33.72	15.82	0	−8
5	30.57	40.52	+1	+10	29.05	30.85	−4	−4	30.22	22.10	−4	−7	33.87	15.69	+2	−5
6	30.48	40.24	−1	+8	29.05	30.52	−4	−8	30.31	21.83	−3	−9	34.01	15.57	+3	0
7	30.39	39.96	−3	+4	29.05	30.19	−3	−9	30.40	21.56	−1	−9	34.16	15.45	+4	+5
8	30.30	39.68	−4	−1	29.06	29.86	−1	−8	30.49	21.29	0	−7	34.30	15.34	+3	+9
9	30.22	39.40	−4	−6	29.07	29.53	+1	−5	30.58	21.02	+2	−3	34.45	15.24	+2	+12
10	30.14	39.11	−3	−9	29.08	29.20	+3	−1	30.67	20.76	+3	+2	34.60	15.14	+1	+12
11	30.06	38.82	−2	−9	29.09	28.87	+3	+4	30.77	20.50	+3	+7	34.75	15.05	−1	+10
12	29.99	38.53	0	−8	29.11	28.55	+3	+8	30.87	20.25	+3	+10	34.90	14.97	−2	+7
13	29.92	38.23	+2	−4	29.13	28.22	+2	+11	30.97	20.00	+1	+12	35.06	14.89	−3	+3
14	29.85	37.93	+3	0	29.16	27.89	+1	+11	31.08	19.76	0	+11	35.21	14.82	−4	−2
15	29.78	37.63	+4	+5	29.19	27.57	0	+10	31.19	19.52	−1	+9	35.37	14.75	−4	−6
16	29.71	37.32	+3	+9	29.22	27.25	−2	+7	31.30	19.28	−3	+5	35.52	14.69	−3	−9
17	29.65	37.01	+2	+11	29.25	26.93	−3	+3	31.41	19.05	−4	+1	35.68	14.64	−1	−10
18	29.59	36.70	+1	+11	29.29	26.61	−4	−1	31.52	18.83	−4	−3	35.83	14.59	0	−10
19	29.53	36.39	−1	+9	29.33	26.29	−4	−5	31.63	18.61	−3	−7	35.99	14.55	+2	−8
20	29.48	36.07	−2	+6	29.38	25.97	−3	−9	31.75	18.39	−2	−10	36.14	14.51	+4	−5
21	29.43	35.75	−3	+2	29.43	25.65	−2	−11	31.87	18.18	−1	−11	36.30	14.48	+5	0
22	29.39	35.43	−4	−3	29.48	25.34	0	−11	31.99	17.98	+1	−10	36.46	14.46	+5	+4
23	29.35	35.11	−3	−7	29.53	25.03	+2	−10	32.11	17.78	+3	−8	36.61	14.44	+4	+7
24	29.31	34.79	−2	−10	29.59	24.73	+4	−6	32.24	17.59	+4	−4	36.77	14.43	+2	+9
25	29.27	34.46	−1	−11	29.65	24.43	+5	−2	32.36	17.40	+5	+1	36.93	14.43	0	+8
26	29.23	34.14	+1	−11	29.71	24.13	+5	+3	32.49	17.22	+4	+5	37.09	14.43	−2	+5
27	29.20	33.81	+3	−9	29.78	23.83	+4	+7	32.62	17.04	+3	+8	37.24	14.44	−3	+1
28	29.17	33.49	+4	−5	29.85	23.53	+3	+9	32.75	16.87	+1	+9	37.40	14.45	−4	−4
29	29.14	33.16	+5	0	29.92	23.24	0	+9	32.89	16.70	−1	+7	37.56	14.47	−4	−8
30	29.12	32.83	+5	+5					33.02	16.54	−3	+4	37.72	14.50	−3	−10
31	29.10	32.50	+4	+8					33.16	16.38	−4	−1	37.88	14.53	−1	−10
32	29.08	32.17	+2	+9					33.30	16.23	−4	−6				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 16′ 10″	7.434	+7.367	+82° 16′ 20″	7.437	+7.369	+82° 16′ 40″	7.442	+7.375
20	7.437	+7.369	30	7.439	+7.372	50	7.445	+7.377

$\alpha_{1931.0} = 20^{h}\,47^{m}\,41^{s}.73$ $\delta_{1931.0} = +82°\,16'\,38''.29$

*) Tag der doppelten unteren Kulmination: Feb. 2

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nk) 76 Draconis $5^m.69$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$20^h 47^m$	$+82° 16'$	in 0.01^s	in $0.01''$	$20^h 47^m$	$+82° 16'$	in 0.01^s	in $0.01''$	$20^h 47^m$	$+82° 16'$	in 0.01^s	in $0.01''$	$20^h 47^m$	$+82° 16'$	in 0.01^s	in $0.01''$
1	$37^s.88$	$14''.53$	−1	−10	$42^s.45$	$18''.50$	+4	+5	$45^s.44$	$26''.68$	+1	+12	$46^s.25$	$37''.55$	−4	0
2	38.04	14.57	+1	−7	42.58	18.71	+3	+9	45.51	27.01	−1	+10	46.23	37.92	−4	−4
3	38.20	14.62	+3	−2	42.71	18.93	+2	+11	45.57	27.34	−2	+7	46.21	38.28	−3	−8
4	38.35	14.67	+3	+3	42.83	19.16	0	+11	45.63	27.67	−3	+3	46.19 46.17	38.64 39.01	−2 −1	−10 −11
5	38.51	14.73	+3	+7	42.95	19.39	−1	+9	45.68	28.00	−4	−1	46.15	39.37	+1	−10
6	38.67	14.80	+3	+11	43.07	19.62	−3	+6	45.74	28.34	−4	−5	46.12	39.73	+3	−7
7	38.83	14.87	+1	+12	43.19	19.85	−4	+2	45.79	28.67	−3	−9	46.09	40.10	+4	−3
8	38.98	14.95	0	+11	43.31	20.09	−4	−3	45.84	29.01	−2	−10	46.05	40.46	+5	+1
9	39.14	15.03	−2	+8	43.43	20.34	−3	−7	45.89	29.35	0	−10	46.01	40.83	+4	+5
10	39.29	15.12	−3	+4	43.54	20.59	−2	−9	45.93	29.69	+2	−9	45.97	41.19	+3	+8
11	39.45	15.21	−4	0	43.65	20.84	−1	−10	45.97	30.04	+3	−5	45.93	41.55	+1	+9
12	39.60	15.31	−4	−4	43.76	21.10	+1	−10	46.01	30.38	+4	−1	45.89	41.91	−1	+7
13	39.76	15.42	−3	−8	43.87	21.36	+2	−7	46.05	30.73	+5	+3	45.84	42.26	−3	+4
14	39.91	15.53	−2	−10	43.97	21.63	+4	−4	46.08	31.08	+4	+7	45.79	42.62	−4	−1
15	40.06	15.65	0	−11	44.08	21.90	+5	+1	46.11	31.43	+2	+9	45.74	42.98	−4	−5
16	40.21	15.77	+1	−9	44.18	22.17	+4	+5	46.14	31.78	0	+9	45.68	43.33	−4	−9
17	40.36	15.90	+3	−6	44.28	22.45	+3	+8	46.17	32.14	−2	+7	45.62	43.69	−2	−10
18	40.51	16.04	+4	−2	44.38	22.73	+2	+10	46.19	32.49	−3	+2	45.56	44.04	0	−9
19	40.66	16.18	+5	+3	44.48	23.01	0	+8	46.21	32.84	−4	−2	45.50	44.39	+2	−5
20	40.80	16.33	+4	+7	44.57	23.30	−2	+5	46.23	33.20	−4	−7	45.44	44.74	+3	0
21	40.95	16.48	+3	+9	44.66	23.59	−4	0	46.25	33.56	−3	−10	45.37	45.09	+3	+5
22	41.09	16.64	+1	+9	44.75	23.88	−4	−4	46.26	33.92	−1	−10	45.30	45.44	+3	+9
23	41.23	16.80	−1	+7	44.84	24.18	−4	−8	46.27	34.28	+1	−8	45.23	45.78	+2	+12
24	41.37	16.97	−3	+3	44.92	24.48	−2	−10	46.28	34.64	+2	−3	45.15	46.13	0	+12
25	41.51	17.14	−4	−2	45.00	24.79	0	−10	46.29	35.01	+3	+2	45.07	46.47	−1	+10
26	41.65	17.32	−4	−7	45.08	25.10	+1	−7	46.29	35.37	+4	+6	44.99	46.81	−3	+7
27	41.79	17.50	−3	−10	45.16	25.41	+3	−2	46.29	35.73	+3	+10	44.91	47.15	−4	+2
28	41.92	17.69	−2	−11	45.23	25.72	+3	+3	46.29	36.10	+2	+12	44.82	47.48	−4	−2
29	42.05	17.89	0	−9	45.30	26.04	+3	+8	46.28	36.46	0	+11	44.73	47.82	−4	−6
30	42.19	18.09	+2	−5	45.37	26.36	+2	+11	46.27	36.82	−2	+9	44.64	48.15	−3	−9
31	42.32	18.29	+3	0	45.44	26.68	+1	+12	46.26	37.19	−3	+5	44.55	48.48	−1	−10
32	42.45	18.50	+4	+5					46.25	37.55	−4	0	44.46	48.81	0	−10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 16′ 10″	7.434	+7.367	+82° 16′ 20″	7.437	+7.369	+82° 16′ 40″	7.442	+7.375
20	7.437	+7.369	30	7.439	+7.372	50	7.445	+7.377

$\alpha_{1931.0} = 20^h\ 47^m\ 41^s.73$ $\delta_{1931.0} = +82°\ 16'\ 38''.29$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Nk) 76 Draconis $5^{m}.69$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
	$20^{h} 47^{m}$	$+82° 16'$	in $0^{s}.01$	in $0''.01$	$20^{h} 47^{m}$	$+82° 16'$	in $0^{s}.01$	in $0''.01$	$20^{h} 47^{m}$	$+82° 17'$	in $0^{s}.01$	in $0''.01$	$20^{h} 47^{m}$	$+82° 16'$	in $0^{s}.01$	in $0''.01$
1	44.46	48.81	0	−10	40.73	57.29	+4	−2	35.55	2.11	+2	+8	30.36	61.77	−3	+1
2	44.36	49.14	+2	−8	40.57	57.52	+5	+2	35.37	2.18	0	+7	30.19	61.67	−4	−3
3	44.27	49.46	+4	−5	40.42	57.74	+4	+6	35.19	2.25	−2	+4	30.03	61.56	−4	−8
4	44.17	49.78	+5	0	40.27	57.96	+3	+8	35.02	2.31	−3	−1	29.87	61.45	−3	−11
5	44.07	50.10	+5	+4	40.11	58.17	+1	+8	34.84	2.36	−4	−6	29.71	61.33	−1	−11
6	43.97	50.42	+4	+7	39.96	58.38	−1	+6	34.66	2.41	−3	−9	29.56	61.21	+1	−9
7	43.86	50.73	+2	+8	39.80	58.58	−3	+2	34.48	2.45	−2	−11	29.40	61.08	+3	−4
8	43.75	51.04	0	+8	39.64	58.78	−4	−3	34.30	2.49	0	−10	29.24	60.95	+4	+1
9	43.64	51.35	−2	+5	39.48	58.98	−4	−7	34.13	2.52	+2	−7	29.09	60.81	+4	+6
10	43.53	51.65	−3	+1	39.32	59.17	−3	−10	33.95	2.55	+3	−2	28.94	60.66	+3	+10
11	43.41	51.95	−4	−4	39.16	59.36	−1	−11	33.77	2.57	+4	+4	28.79	60.51	+2	+12
12	43.29	52.25	−4	−8	38.99	59.54	0	−9	33.59	2.59	+3	+8	28.64	60.35	0	+12
13	43.17	52.55	−3	−10	38.83	59.72	+2	−4	33.42	2.60	+2	+12	28.50	60.19	−2	+9
14	43.05	52.84	−1	−9	38.67	59.89	+3	+1	33.24	2.60	+1	+12	28.35	60.02	−3	+5
15	42.93	53.13	+1	−7	38.50	60.05	+4	+6	33.07	2.60	−1	+11	28.21	59.85	−4	0
16	42.81	53.42	+3	−2	38.33	60.21	+3	+10	32.89	2.59	−3	+8	28.07	59.67	−4	−4
17	42.68	53.70	+3	+3	38.16	60.37	+2	+12	32.71	2.58	−4	+3	27.93	59.49	−3	−7
18	42.55	53.98	+3	+8	37.99	60.52	0	+12	32.54	2.56	−4	−1	27.79	59.30	−2	−9
19	42.42	54.26	+2	+11	37.82	60.67	−2	+10	32.37	2.53	−4	−5	27.66	59.11	−1	−10
20	42.29	54.53	+1	+12	37.64	60.81	−3	+6	32.19	2.50	−3	−8	27.53	58.91	+1	−8
21	42.16	54.80	−1	+11	37.47	60.95	−4	+2	32.02	2.46	−2	−10	27.40	58.70	+3	−6
22	42.02	55.07	−2	+8	37.30	61.08	−4	−3	31.85	2.42	0	−9	27.27	58.49	+4	−2
23	41.89	55.33	−3	+4	37.13	61.21	−4	−7	31.68	2.37	+2	−7	27.14	58.28	+4	+2
24	41.75	55.59	−4	0	36.95	61.33	−3	−9	31.51	2.32	+3	−4	27.01	58.06	+4	+6
25	41.61	55.84	−4	−5	36.78	61.44	−1	−10	31.35	2.26	+4	0	26.89	57.84	+3	+9
26	41.47	56.09	−3	−8	36.60	61.55	+1	−9	31.18	2.19	+4	+4	26.77	57.61	+1	+9
27	41.32	56.34	−2	−10	36.43	61.66	+2	−7	31.01	2.12	+4	+7	26.65	57.38	−1	+7
28	41.18	56.58	0	−10	36.25	61.76	+4	−3	30.85	2.04	+2	+9	26.53	57.14	−3	+4
29	41.03	56.82	+1	−9	36.08	61.86	+4	+1	30.68	1.96	0	+8	26.42	56.90	−4	−1
30	40.88	57.06	+3	−6	35.90	61.95	+4	+5	30.52	1.87	−1	+6	26.31	56.66	−4	−6
31	40.73	57.29	+4	−2	35.73	62.03	+4	+8	30.36	1.77	−3	+1	26.21	56.41	−3	−9
32					35.55	62.11	+2	+8					26.10	56.16	−2	−11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
+82° 16′ 40″	7.442	+7.375	+82° 16′ 50″	7.445	+7.377	+82° 17′ 0″	7.447	+7.380
50	7.445	+7.377	60	7.447	+7.380	10	7.450	+7.383

$\alpha_{1931.0} = 20^{h}\ 47^{m}\ 41^{s}.73$ $\delta_{1931.0} = +\ 82°\ 16'\ 38''.29$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sa) Octantis 4 G. $5^m.63$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$1^h 41^m$	85° 7′	$0^s.01$	0″.01	$1^h 41^m$	85° 7′	$0^s.01$	0″.01	$1^h 41^m$	85° 7′	$0^s.01$	0″.01	$1^h 41^m$	85° 6′	$0^s.01$	0″.01
1	$21^s.71$	25″.37	−3	−12	$13^s.58$	22″.95	−6	+2	$7^s.29$	16″.24	−5	+4	$2^s.97$	65″.55	+7	+7
2	21.44	25.39	−6	−10	13.33	22.78	−4	+7	7.10	15.94	−1	+8	2.89	65.17	+8	+3
3	21.18	25.40	−8	−6	13.08	22.60	0	+10	6.91	15.64	+3	+10	2.81	64.79	+7	−1
4	20.91	25.40	−7	−1	12.83	22.41	+4	+10	6.73	15.33	+6	+9	2.74	64.41	+4	−5
5	20.65	25.39	−5	+5	12.58	22.22	+7	+9	6.55	15.02	+8	+6	2.67	64.02	0	−7
6	20.39	25.38	−2	+9	12.34	22.03	+8	+5	6.37	14.70	+8	+2	2.60	63.64	−3	−7
7	20.12	25.36	+2	+11	12.10	21.83	+7	+1	6.20	14.38	+6	−2	2.54	63.26	−7	−5
8	19.86	25.34	+5	+10	11.85	21.63	+5	−3	6.03	14.06	+2	−5	2.48	62.87	−8	−2
9	19.59	25.31	+7	+7	11.61	21.42	+1	−6	5.86	13.73	−1	−7	2.42	62.49	−8	+2
10	19.33	25.28	+8	+3	11.37	21.21	−3	−7	5.70	13.40	−5	−6	2.37	62.10	−7	+6
11	19.06	25.24	+6	−1	11.14	20.99	−6	−6	5.54	13.07	−7	−4	2.32	61.71	−4	+9
12	18.80	25.19	+3	−5	10.91	20.76	−8	−3	5.38	12.74	−8	0	2.28	61.33	−1	+10
13	18.53	25.13	0	−7	10.68	20.53	−8	0	5.23	12.40	−8	+3	2.24	60.94	+2	+10
14	18.27	25.07	−4	−7	10.45	20.30	−7	+4	5.08	12.06	−6	+7	2.21	60.56	+5	+8
15	18.00	25.00	−7	−5	10.22	20.06	−5	+7	4.93	11.72	−3	+9	2.18	60.17	+7	+5
16	17.74	24.93	−8	−2	9.99	19.81	−2	+9	4.79	11.37	0	+10	2.15	59.78	+8	+1
17	17.47	24.85	−8	+2	9.77	19.56	+2	+9	4.65	11.02	+3	+9	2.13	59.39	+7	−4
18	17.21	24.77	−6	+5	9.55	19.31	+4	+8	4.51	10.67	+6	+7	*)2.11	59.01	+5	−7
19	16.94	24.68	−3	+8	9.33	19.05	+7	+6	4.38	10.32	+7	+4	2.09	58.62	+2	−10
20	16.68	24.58	0	+9	9.11	18.79	+8	+2	4.25	9.96	+8	0	2.08	58.23	−1	−12
21	16.42	24.48	+3	+9	8.90	18.52	+7	−3	4.12	9.60	+6	−5	2.07	57.84	−4	−12
22	16.15	24.37	+5	+7	8.69	18.25	+6	−7	4.00	9.24	+4	−9	2.07	57.45	−7	−9
23	15.89	24.25	+7	+4	8.48	17.98	+3	−11	3.88	8.88	+1	−12	2.07	57.06	−8	−5
24	15.63	24.13	+8	0	8.27	17.70	0	−13	3.77	8.52	−2	−12	2.07	56.68	−7	0
25	15.37	24.00	+7	−5	8.07	17.42	−4	−13	3.66	8.15	−5	−11	2.08	56.29	−4	+5
26	15.11	23.87	+5	−9	7.87	17.13	−6	−10	3.55	7.78	−7	−8	2.09	55.91	0	+8
27	14.85	23.73	+2	−12	7.67	16.84	−8	−6	3.44	7.41	−7	−3	2.11	55.53	+4	+9
28	14.59	23.59	−2	−13	7.48	16.54	−7	−1	3.34	7.04	−6	+2	2.13	55.15	+7	+8
29	14.34	23.44	−5	−12	7.29	16.24	−5	+4	3.24	6.67	−3	+6	2.16	54.77	+8	+4
30	14.08	23.28	−7	−8					3.15	6.30	+1	+9	2.19	54.40	+8	0
31	13.83	23.12	−8	−4					3.06	5.92	+5	+9	2.22	54.02	+6	−4
32	13.58	22.95	−6	+2					2.97	5.55	+7	+7				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 6′ 50″	11.740	−11.698	−85° 7′ 0″	11.747	−11.705	−85° 7′ 20″	11.761	−11.718
60	11.747	−11.705	10	11.754	−11.711	30	11.767	−11.725

$\alpha_{1931.0} = 1^h\ 41^m\ 11^s.30$ $\delta_{1931.0} = -85°\ 7'\ 7''.29$

*) Tag der doppelten unteren Kulmination: April 18

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sa) Octantis 4 G. $5^m.63$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		—	in			—	in			—	in			—	in	
	1^h41^m	85°6′	0.01 s	0.01″	1^h41^m	85°6′	0.01 s	0.01″	1^h41^m	85°6′	0.01 s	0.01″	1^h41^m	85°6′	0.01 s	0.01″
1	2.22 s	54.02″	+6	−4	5.13 s	43.28″	−7	−6	10.87 s	36.07″	−7	+5	18.36 s	33.54″	+4	+10
2	2.26	53.65	+2	−7	5.28	42.98	−8	−2	11.10	35.91	−4	+8	18.60	33.55	+6	+7
3	2.30	53.27	−2	−8	5.43	42.68	−8	+2	11.33	35.75	−1	+10	18.84	33.57	+7	+3
4	2.34	52.90	−6	−7	5.59	42.39	−6	+6	11.56	35.59	+2	+10	19.09	33.59	+7	−1
5	2.39	52.53	−8	−4	5.75	42.10	−3	+9	11.79	35.44	+5	+9	19.33	33.62	+6	−5
6	2.44	52.15	−8	0	5.91	41.81	0	+10	12.03	35.30	+7	+6	19.57	33.66	+4	−9
7	2.50	51.78	−7	+4	6.08	41.53	+3	+10	12.26	35.16	+8	+2	19.82	33.70	+1	−12
8	2.56	51.41	−5	+8	6.25	41.25	+6	+8	12.49	35.02	+7	−2	20.06	33.75	−3	−12
9	2.63	51.04	−2	+10	6.42	40.97	+7	+4	12.73	34.89	+5	−7	20.30	33.80	−5	−11
10	2.70	50.68	+1	+10	6.59	40.70	+7	0	12.96	34.77	+3	−10	20.54	33.86	−7	−7
11	2.77	50.32	+4	+9	6.77	40.43	+7	−4	13.20	34.65	−1	−12	20.78	33.93	−7	−3
12	2.85	49.96	+6	+7	6.95	40.17	+4	−8	13.44	34.54	−4	−12	21.01	34.00	−6	+2
13	2.93	49.60	+7	+3	7.14	39.91	+1	−11	13.68	34.43	−7	−9	21.24	34.07	−3	+7
14	3.01	49.25	+7	−1	7.33	39.66	−2	−12	13.93	34.33	−8	−5	21.48	34.15	+1	+9
15	3.10	48.89	+6	−5	7.52	39.41	−5	−11	14.17	34.24	−7	0	21.71	34.24	+5	+10
16	3.19	48.54	+3	−9	7.71	39.17	−7	−7	14.41	34.15	−5	+5	21.94	34.33	+7	+7
17	3.28	48.19	0	−11	7.90	38.93	−8	−3	14.66	34.07	−1	+8	22.17	34.43	+8	+4
18	3.38	47.84	−3	−12	8.10	38.69	−6	+2	14.90	33.99	+3	+10	22.40	34.54	+7	−1
19	3.48	47.49	−6	−10	8.30	38.46	−3	+7	15.15	33.92	+6	+9	22.63	34.65	+4	−5
20	3.59	47.15	−8	−6	8.50	38.23	0	+9	15.40	33.86	+8	+6	22.85	34.77	0	−7
21	3.70	46.81	−7	−1	8.71	38.01	+4	+10	15.64	33.80	+8	+1	23.07	34.89	−4	−8
22	3.81	46.47	−5	+4	8.92	37.79	+7	+8	15.89	33.75	+6	−3	23.29	35.02	−7	−6
23	3.93	46.14	−2	+7	9.13	37.58	+8	+4	16.13	33.70	+3	−7	23.50	35.15	−8	−2
24	4.05	45.81	+2	+9	9.34	37.37	+8	−1	16.38	33.66	−1	−8	23.72	35.29	−8	+2
25	4.17	45.49	+6	+9	9.55	37.17	+5	−5	16.63	33.62	−5	−8	23.93	35.43	−7	+6
26	4.30	45.16	+8	+6	9.76	36.97	+1	−8	16.88	33.59	−7	−5	24.14	35.58	−4	+9
27	4.43	44.84	+8	+1	9.98	36.78	−3	−8	17.12	33.57	−8	−1	24.35	35.73	−1	+10
28	4.56	44.52	+7	−3	10.20	36.60	−6	−7	17.37	33.55	−8	+3	24.56	35.89	+3	+10
29	4.70	44.20	+4	−7	10.42	36.42	−8	−4	17.62	33.54	−6	+7	24.76	36.05	+5	+8
30	4.84	43.89	0	−8	10.65	36.24	−8	0	17.87	33.53	−3	+9	24.96	36.22	+7	+5
31	4.98	43.58	−4	−8	10.87	36.07	−7	+5	18.11	33.53	+1	+10	25.16	36.40	+7	+1
32	5.13	43.28	−7	−6					18.36	33.54	+4	+10	25.35	36.58	+7	−4

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 6′ 30″	11.727	−11.684	−85° 6′ 40″	11.734	−11.691	−85° 6′ 50″	11.740	−11.698
40	11.734	−11.691	50	11.740	−11.698	60	11.747	−11.705

$\alpha_{1931.0} = 1^h\ 41^m\ 11^s.30$ $\delta_{1931.0} = -85°\ 7'\ 7''.29$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sa) Octantis 4 G. $5^{m}.63$

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	1^h41^m	$-85°6'$	in 0.01^s $0.01''$	1^h41^m	$-85°6'$	in 0.01^s $0.01''$	1^h41^m	$-85°6'$	in 0.01^s $0.01''$	1^h41^m	$-85°7'$	in 0.01^s $0.01''$
1	25.35	36.58	+7 −4	29.54	43.90	0 −11	29.63	53.75	−6 +1	25.46	1.50	+3 +9
2	25.54	36.76	+5 −8	29.62	44.20	−3 −12	29.56	54.05	−3 +5	25.26	1.70	+6 +8
3	25.73	36.95	+2 −11	29.69	44.49	−6 −10	29.48	54.35	0 +8	25.06	1.89	+8 +4
4	25.91	37.15	−1 −12	29.76	44.79	−7 −7	29.39	54.65	+4 +8	24.85	2.07	+8 0
5	26.09	37.35	−5 −12	29.82	45.09	−7 −2	29.30	54.94	+7 +6	24.64	2.25	+6 −5
6	26.27	37.55	−7 −9	29.88	45.39	−5 +2	29.20	55.23	+8 +3	24.43	2.43	+3 −8
7	26.45	37.76	−7 −5	29.93	45.69	−2 +6	29.10	55.52	+8 −2	24.22	2.60	−1 −9
8	26.62	37.97	−6 0	29.98	46.00	+2 +8	28.99	55.81	+5 −6	24.00	2.77	−5 −9
9	26.79	38.19	−4 +5	30.03	46.30	+6 +8	28.88	56.09	+1 −8	23.78	2.93	−7 −5
10	26.96	38.41	0 +8	30.07	46.61	+8 +5	28.77	56.37	−3 −9	23.56	3.08	−9 −1
11	27.12	38.63	+4 +9	30.10	46.92	+8 +1	28.65	56.65	−6 −7	23.33	3.23	−8 +4
12	27.28	38.86	+7 +8	30.13	47.23	+7 −3	28.53	56.93	−8 −3	23.10	3.37	−6 +8
13	27.44	39.09	+8 +5	30.16	47.54	+3 −6	28.41	57.20	−9 +1	22.87	3.51	−2 +11
14	27.59	39.33	+8 0	30.18	47.85	0 −8	28.28	57.47	−7 +6	22.64	3.64	+1 +11
15	27.74	39.57	+5 −4	30.19	48.16	−4 −8	28.15	57.74	−4 +10	22.41	3.77	+4 +10
16	27.88	39.82	+2 −7	30.20	48.48	−7 −5	28.01	58.00	−1 +11	22.17	3.89	+6 +8
17	28.02	40.07	−2 −8	30.21 / 30.21	48.79 / 49.10	−8 −1 / −8 +4	27.87	58.26	+2 +11	21.93	4.00	+7 +4
18	28.16	40.32	−6 −7	30.21	49.41	−6 +8	27.72	58.52	+5 +10	21.69	4.11	+7 0
19	28.29	40.58	−8 −3	30.20	49.73	−3 +10	27.57	58.77	+7 +6	21.45	4.21	+5 −5
20	28.42	40.84	−8 +1	30.19	50.04	0 +11	27.42	59.02	+7 +2	21.20	4.31	+3 −8
21	28.54	41.10	−7 +5	30.17	50.35	+3 +11	27.26	59.27	+7 −2	20.96	4.40	0 −10
22	28.66	41.37	−5 +9	30.15	50.67	+6 +8	27.10	59.51	+5 −6	20.71	4.48	−3 −11
23	28.77	41.64	−2 +11	30.12	50.98	+7 +5	26.93	59.75	+2 −9	20.46	4.56	−6 −10
24	28.88	41.91	+1 +11	30.08	51.29	+7 0	26.76	59.98	−1 −11	20.21	4.63	−7 −6
25	28.99	42.19	+4 +10	30.04	51.60	+6 −4	26.58	60.21	−4 −11	19.95	4.70	−7 −2
26	29.09	42.47	+6 +7	30.00	51.91	+4 −8	26.40	60.44	−6 −9	19.69	4.76	−6 +3
27	29.19	42.75	+7 +3	29.95	52.22	+1 −10	26.22	60.66	−7 −5	19.44	4.81	−3 +7
28	29.28	43.03	+7 −2	29.90	52.53	−2 −12	26.04	60.88	−7 0	19.18	4.86	+1 +9
29	29.37	43.32	+6 −6	29.84	52.84	−5 −11	25.85	61.09	−4 +4	18.92	4.90	+5 +9
30	29.46	43.61	+3 −9	29.77	53.14	−7 −8	25.66	61.30	−1 +7	18.66	4.93	+7 +6
31	29.54	43.90	0 −11	29.70	53.45	−7 −4	25.46	61.50	+3 +9	18.40	4.96	+8 +2
32				29.63	53.75	−6 +1				18.13	4.98	+7 −2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 6′ 30″	11.727	−11.684	−85° 6′ 50″	11.740	−11.698	−85° 7′ 0″	11.747	−11.705
40	11.734	−11.691	60	11.747	−11.705	10	11.754	−11.711

$\alpha_{1931.0} = 1^h\ 41^m\ 11^s.30 \qquad \delta_{1931.0} = -85°\ 7'\ 7''.29$

Sb) ξ Mensae $5^m.85$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
		—	in		—	in		—	in		—	in
	$5^h\ 6^m$	82° 33′	0.01^s $0.01''$	$5^h\ 6^m$	82° 34′	0.01^s $0.01''$	$5^h\ 6^m$	82° 34′	0.01^s $0.01''$	$5^h\ 6^m$	82° 33′	0.01^s $0.01''$
1	$50^s.88$	$56''.39$	+3 −10	$46^s.63$	$3''.55$	−3 −5	$41^s.41$	$5''.97$	−3 −2	$35^s.43$	$63''.80$	+1 +11
2	50.77	56.68	+1 −12	46.46	3.71	−3 0	41.21	5.98	−3 +3	35.25	63.65	+2 +10
3	50.67	56.97	−1 −11	46.29	3.86	−3 +5	41.02	5.98	−2 +8	35.07	63.49	+3 +6
4	50.57	57.25	−3 −8	46.11	4.01	−2 +10	40.82	5.98	0 +11	34.89	63.33	+3 +1
5	50.46	57.53	−4 −3	45.94	4.15	0 +11	40.63	5.97	+1 +11	34.71	63.17	+2 −4
6	50.35	57.81	−4 +3	45.76	4.29	+1 +10	40.43	5.96	+2 +9	34.53	63.00	+1 −8
7	50.24	58.08	−3 +8	45.58	4.42	+2 +7	40.23	5.94	+3 +5	34.36	62.83	−1 −10
8	50.12	58.35	−1 +11	45.40	4.55	+3 +3	40.03	5.92	+2 0	34.19	62.66	−2 −10
9	50.00	58.62	+1 +11	45.22	4.67	+2 −2	39.84	5.89	+1 −5	34.01	62.48	−3 −8
10	49.88	58.88	+2 +9	45.04	4.78	+1 −7	39.64	5.86	0 −9	33.84	62.30	−4 −4
11	49.76	59.14	+3 +5	44.85	4.89	0 −9	39.44	5.82	−2 −10	33.67	62.11	−4 0
12	49.63	59.39	+3 0	44.67	5.00	−2 −10	39.24	5.78	−3 −9	33.50	61.92	−3 +4
13	49.50	59.64	+2 −4	44.49	5.10	−3 −8	39.05	5.73	−4 −7	33.34	61.72	−2 +8
14	49.37	59.89	+1 −8	44.30	5.19	−4 −5	38.85	5.68	−4 −3	33.17	61.52	−1 +10
15	49.24	60.13	−1 −10	44.11	5.28	−4 −1	38.66	5.62	−4 +2	33.01	61.31	+1 +10
16	49.10	60.37	−2 −9	43.92	5.37	−3 +3	38.46	5.55	−3 +5	32.85	61.10	+2 +9
17	48.96	60.60	−3 −7	43.73	5.45	−2 +7	38.27	5.48	−1 +8	32.69	60.88	+3 +6
18	48.82	60.83	−4 −4	43.54	5.52	−1 +9	38.07	5.40	0 +10	32.54	60.66	+4 +1
19	48.68	61.05	−4 0	43.35	5.59	+1 +10	37.88	5.32	+2 +9	32.38	60.44	+4 −3
20	48.53	61.27	−3 +4	43.16	5.65	+2 +9	37.68	5.23	+3 +8	32.23	60.21	+3 −7
21	48.38	61.48	−2 +7	42.96	5.71	+3 +6	37.49	5.14	+4 +4	32.08	59.98	+2 −10
22	48.23	61.69	0 +9	42.77	5.76	+4 +2	37.29	5.04	+4 0	31.93	59.75	0 −11
23	48.08	61.89	+2 +9	42.58	5.80	+4 −2	37.10	4.94	+4 −5	31.78	59.51	−1 −10
24	47.93	62.09	+3 +8	42.38	5.84	+4 −7	36.91	4.84	+3 −9	31.64	59.27	−2 −6
25	47.77	62.29	+4 +5	42.19	5.88	+2 −10	36.72	4.73	+1 −11	31.50	59.02	−3 −1
26	47.61	62.48	+4 +1	42.00	5.91	+1 −12	36.54	4.61	0 −11	31.36	58.77	−2 +4
27	47.45	62.67	+4 −4	41.80	5.93	−1 −11	36.35	4.49	−2 −9	31.22	58.52	−1 +9
28	47.29	62.86	+3 −8	41.61	5.95	−2 −7	36.16	4.36	−3 −4	31.08	58.26	0 +11
29	47.13	63.04	+2 −11	41.41	5.97	−3 −2	35.98	4.23	−3 +1	30.94	58.00	+2 +11
30	46.96	63.22	0 −12				35.79	4.09	−2 +6	30.81	57.74	+3 +8
31	46.80	63.39	−2 −10				35.61	3.95	−1 +10	30.68	57.47	+3 +3
32	46.63	63.55	−3 −5				35.43	3.80	+1 +11			

δ	sec δ	tg δ	δ	sec δ	tg δ
−82° 33′ 50″	7.727	−7.662	−82° 34′ 0″	7.730	−7.665
60	7.730	−7.665	10	7.732	−7.668

$\alpha_{1931.0} = 5^h\ 6^m\ 39^s.55$ $\delta_{1931.0} = -82°\ 33'\ 55''.68$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sb) ξ Mensae 5ᵐ.85

Tag	Mai				Juni				Juli				August			
	AR.	Dekl	☾ Glieder		AR	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl	☾ Glieder	
	$5^h\ 6^m$	—82° 33'	in 0.01ˢ	in 0.01"	$5^h\ 6^m$	—82° 33'	in 0.01ˢ	in 0.01"	$5^h\ 6^m$	—82° 33'	in 0.01ˢ	in 0.01"	$5^h\ 6^m$	—82° 33'	in 0.01ˢ	in 0.01"
1	30.68	57.47	+3	+3	27.86	47.97	−1	−10	27.68	37.85	−4	−5	30.09	28.92	−1	+9
2	30.55	57.20	+3	−2	27.81	47.64	−2	−9	27.72	37.53	−4	0	30.20	28.69	0	+10
3	30.42	56.93	+2	−6	27.76	47.31	−3	−7	27.76	37.20	−3	+4	30.32	28.46	+2	+9
4	30.30	56.66	0	−9	27.72	46.97	−4	−3	27.80	36.88	−2	+7	30.44	28.24	+3	+7
5	30.18	56.38	−2	−10	27.68	46.63	−4	+1	27.85	36.56	−1	+10	30.56	28.02	+4	+4
6	30.06	56.10	−3	−9	27.64	46.29	−3	+5	27.90	36.24	+1	+10	30.68	27.80	+4	−1
7	29.94	55.82	−4	−5	27.61	45.95	−2	+8	27.95	35.93	+2	+9	30.81	27.59	+4	−5
8	29.83	55.53	−4	−1	27.58	45.61	0	+10	28.00	35.61	+3	+6	30.94	27.38	+3	−9
9	29.72	55.24	−4	+3	*)27.55	45.27	+1	+10	28.06	35.30	+4	+2	31.07	27.18	+1	−11
10	29.61	54.95	−3	+7	27.52	44.93	+3	+8	28.12	34.99	+4	−3	31.20	26.98	0	−11
11	29.50	54.65	−1	+9	27.50	44.59	+4	+5	28.18	34.68	+3	−7	31.33	26.79	−2	−9
12	29.39	54.35	0	+10	27.48	44.24	+4	0	28.25	34.38	+2	−10	31.46	26.60	−3	−4
13	29.29	54.05	+2	+9	27.47	43.90	+4	−4	28.32	34.08	0	−11	31.60	26.42	−3	+1
14	29.19	53.75	+3	+7	27.46	43.56	+3	−8	28.39	33.78	−1	−10	31.74	26.24	−2	+6
15	29.10	53.44	+4	+3	27.45	43.22	+1	−11	28.46	33.48	−3	−7	31.88	26.07	−1	+10
16	29.00	53.14	+4	−1	27.44	42.88	0	−11	28.53	33.18	−3	−2	32.02	25.91	0	+11
17	28.91	52.83	+3	−6	27.43	42.54	−2	−9	28.61	32.89	−3	+3	32.16	25.75	+2	+10
18	28.82	52.51	+2	−9	27.43	42.20	−3	−5	28.69	32.60	−2	+8	32.31	25.59	+3	+6
19	28.73	52.20	+1	−11	27.43	41.86	−3	0	28.78	32.32	0	+11	32.46	25.44	+3	+1
20	28.65	51.89	−1	−11	27.43	41.52	−3	+5	28.86	32.04	+1	+11	32.60	25.29	+2	−4
21	28.57	51.58	−2	−8	27.44	41.18	−1	+9	28.95	31.76	+2	+9	32.75	25.15	+1	−8
22	28.49	51.26	−3	−3	27.45	40.84	0	+11	29.04	31.48	+3	+4	32.90	25.02	−1	−10
23	28.41	50.93	−3	+2	27.47	40.51	+2	+10	29.13	31.21	+3	−1	33.05	24.89	−3	−10
24	28.34	50.61	−2	+7	27.49	40.17	+3	+7	29.23	30.94	+2	−6	33.20	24.76	−4	−8
25	28.27	50.29	0	+10	27.51	39.84	+3	+2	29.33	30.67	0	−9	33.36	24.64	−4	−4
26	28.20	49.96	+1	+11	27.53	39.50	+3	−3	29.43	30.41	−1	−10	33.51	24.53	−4	+1
27	28.14	49.63	+2	+9	27.55	39.17	+2	−7	29.53	30.15	−3	−9	33.66	24.43	−3	+5
28	28.08	49.31	+3	+5	27.58	38.84	0	−10	29.64	29.90	−4	−6	33.82	24.33	−2	+8
29	28.02	48.98	+3	0	27.61	38.51	−2	−10	29.75	29.65	−4	−2	33.98	24.24	0	+10
30	27.96	48.64	+2	−5	27.64	38.18	−3	−8	29.86	29.40	−4	+2	34.14	24.15	+1	+10
31	27.91	48.31	+1	−9	27.68	37.85	−4	−5	29.97	29.16	−3	+6	34.29	24.07	+2	+8
32	27.86	47.97	−1	−10					30.09	28.92	−1	+9	34.45	23.99	+3	+5

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
—82° 33' 20"	7.718	—7.653	—82° 33' 30"	7.721	—7.656	—82° 33' 50"	7.727	—7.662
30	7.721	—7.656	40	7.724	—7.659	60	7.730	—7.665

$\alpha_{1931.0} = 5^h\ 6^m\ 39^s.55$ $\delta_{1931.0} = -82°\ 33'\ 55''.68$

*) Tag der doppelten unteren Kulmination: Juni 9

Sb) ξ Mensae $5^m.85$

Tag	September				Oktober				November				Dezember			
	AR	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$5^h\ 6^m$	$-82° 33'$	in $0^s.01$	in $0''.01$	$5^h\ 6^m$	$-82° 33'$	in $0^s.01$	in $0''.01$	$5^h\ 6^m$	$-82° 33'$	in $0^s.01$	in $0''.01$	$5^h\ 6^m$	$-82° 33'$	in $0^s.01$	in $0''.01$
	s	"			s	"			s	"			s	"		
1	34.45	23.99	+3	+5	39.27	24.60	+3	−6	43.26	30.76	−1	−9	44.83	40.22	−2	+3
2	34.61	23.92	+4	+1	39.42	24.71	+2	−10	43.36	31.04	−2	−6	44.83	40.56	−1	+8
3	34.77	23.86	+4	−4	39.58	24.83	+1	−11	43.45	31.32	−3	0	44.83	40.90	0	+10
4	34.93	23.80	+3	−8	39.73	24.96	−1	−11	43.54	31.60	−2	+5	44.83	41.24	+2	+11
5	35.09	23.75	+2	−11	39.88	25.09	−2	−8	43.63	31.88	−1	+9	44.82	41.58	+3	+9
6	35.25	23.70	0	−11	40.03	25.23	−3	−3	43.71	32.17	+1	+11	44.81	41.92	+4	+4
7	35.41	23.66	−1	−10	40.17	25.38	−3	+2	43.79	32.46	+2	+10	44.80	42.27	+3	−1
8	35.57	23.63	−2	−6	40.32	25.53	−2	+7	43.87	32.76	+3	+7	44.78 44.76	42.61 42.95	+2 +1	−6 −9
9	35.73	23.60	−3	−1	40.47	25.69	0	+10	43.94	33.06	+3	+2	44.74	43.29	−1	−11
10	35.90	23.58	−2	+4	40.61	25.86	+1	+11	44.01	33.36	+3	−3	44.71	43.62	−3	−9
11	36.06	23.57	−1	+9	40.75	26.03	+2	+9	44.08	33.67	+2	−8	44.68	43.96	−4	−6
12	36.22	23.56	0	+11	40.89	26.20	+3	+5	44.15	33.97	0	−10	44.65	44.30	−4	−2
13	36.38	23.56	+2	+11	41.03	26.38	+3	0	44.22	34.28	−2	−10	44.61	44.63	−4	+3
14	36.55	23.56	+3	+8	41.16	26.57	+2	−5	44.28	34.59	−3	−8	44.57	44.97	−3	+7
15	36.71	23.57	+3	+3	41.30	26.76	+1	−9	44.34	34.91	−4	−4	44.53	45.30	−2	+10
16	36.88	23.59	+3	−2	41.43	26.95	−1	−10	44.39	35.23	−4	0	44.49	45.64	0	+11
17	37.04	23.61	+1	−7	41.56	27.15	−3	−9	44.44	35.55	−4	+5	44.44	45.97	+2	+10
18	37.20	23.64	0	−9	41.69	27.36	−4	−7	44.49	35.87	−3	+8	44.39	46.29	+3	+7
19	37.36	23.68	−2	−10	41.82	27.57	−4	−2	44.54	36.20	−1	+10	44.33	46.62	+3	+3
20	37.53	23.72	−3	−8	41.94	27.78	−4	+2	44.58	36.52	+1	+10	44.27	46.95	+4	−1
21	37.69	23.77	−4	−5	42.06	28.00	−3	+6	44.62	36.85	+2	+9	44.21	47.27	+3	−6
22	37.85	23.83	−4	−1	42.18	28.23	−2	+9	44.66	37.18	+3	+6	44.14	47.59	+2	−9
23	38.01	23.89	−4	+3	42.30	28.46	0	+10	44.69	37.51	+4	+2	44.07	47.92	+1	−11
24	38.17	23.96	−3	+7	42.41	28.70	+1	+10	44.72	37.84	+3	−3	44.00	48.24	−1	−11
25	38.33	24.03	−1	+9	42.53	28.94	+2	+8	44.74	38.18	+3	−7	43.92	48.55	−2	−8
26	38.49	24.11	0	+10	42.64	29.19	+3	+4	44.76	38.52	+2	−10	43.84	48.86	−3	−4
27	38.65	24.19	+2	+9	42.75	29.44	+4	0	44.78	38.86	0	−11	43.76	49.17	−3	+1
28	38.81	24.28	+3	+6	42.86	29.70	+3	−5	44.80	39.20	−1	−10	43.67	49.48	−2	+6
29	38.96	24.38	+4	+2	42.97	29.96	+2	−9	44.81	39.54	−2	−7	43.58	49.78	−1	+10
30	39.12	24.49	+4	−2	43.07	30.22	+1	−11	44.82	39.88	−3	−2	43.49	50.08	+1	+11
31	39.27	24.60	+3	−6	43.17	30.49	0	−11	44.83	40.22	−2	+3	43.40	50.38	+2	+10
32					43.26	30.76	−1	−9					43.31	50.68	+3	+6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−82° 33′ 20″	7.718	−7.653	−82° 33′ 30″	7.721	−7.656	−82° 33′ 50″	7.727	−7.662
30	7.721	−7.656	40	7.724	−7.659	60	7.730	−7.665

$\alpha_{1931.0} = 5^h\ 6^m\ 39^s.55$ $\delta_{1931.0} = -82°\ 33'\ 55''.68$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

8c) ζ Octantis $5^m.38$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder		Februar AR.	Februar Dekl.	Februar ☾ Glieder		März AR.	März Dekl.	März ☾ Glieder		April AR.	April Dekl.	April ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$9^h\ 7^m$	85° 23′	$0^s.01$	0″.01	$9^h\ 7^m$	85° 23′	$0^s.01$	0″.01	$9^h\ 7^m$	85° 23′	$0^s.01$	0″.01	$9^h\ 6^m$	85° 23′	$0^s.01$	0″.01
1	12.74	2.42	+7	+6	14.33	13.74	+5	−9	11.70	24.53	−1	−8	65.32	33.82	−7	+7
2	12.86	2.75	+9	+1	14.30	14.13	+1	−9	11.54	24.88	−5	−5	65.07	34.06	−5	+9
3	12.98	3.09	+8	−4	14.27	14.51	−3	−7	11.38	25.22	−7	0	64.82	34.30	−2	+9
4	13.10	3.43	+6	−8	14.24	14.90	−6	−4	11.22	25.56	−8	+4	64.56	34.53	+2	+7
5	13.21	3.77	+3	−10	14.20	15.28	−8	+1	11.05	25.90	−7	+8	64.30	34.76	+5	+3
6	13.31	4.11	−1	−9	14.15	15.66	−8	+5	10.88	26.24	−4	+9	64.04	34.98	+6	−2
7	13.41	4.46	−5	−7	14.10 / 14.05	16.04 / 16.43	−6 / −3	+8 / +9	10.71	26.57	−1	+8	63.78	35.20	+6	−7
8	13.51	4.81	−8	−2	13.99	16.81	+1	+7	10.53	26.90	+3	+5	63.52	35.41	+5	−10
9	13.60	5.16	−8	+3	13.92	17.19	+4	+4	10.35	27.23	+5	+1	63.26	35.62	+2	−12
10	13.68	5.51	−7	+7	13.85	17.57	+6	−1	10.17	27.56	+6	−4	62.99	35.82	−1	−11
11	13.76	5.87	−5	+9	13.78	17.95	+6	−5	9.98	27.88	+6	−8	62.72	36.02	−4	−9
12	13.84	6.23	−1	+8	13.70	18.33	+5	−9	9.79	28.20	+4	−11	62.45	36.21	−6	−6
13	13.91	6.59	+2	+6	13.62	18.70	+3	−11	9.60	28.51	+1	−12	62.18	36.40	−7	−1
14	13.98	6.95	+5	+2	13.53	19.08	0	−11	9.40	28.82	−2	−11	61.91	36.59	−7	+3
15	14.04	7.32	+6	−2	13.44	19.45	−3	−9	9.20	29.13	−4	−8	61.63	36.77	−6	+7
16	14.10	7.69	+6	−7	13.34	19.83	−5	−6	8.99	29.44	−6	−4	61.36	36.94	−4	+10
17	14.15	8.06	+5	−10	13.24	20.20	−6	−2	8.78	29.74	−7	0	61.09	37.11	−1	+11
18	14.20	8.43	+2	−11	13.14	20.57	−7	+3	8.57	30.04	−7	+5	60.81	37.28	+2	+10
19	14.24	8.80	−1	−10	13.03	20.94	−6	+7	8.36	30.33	−5	+8	60.53	37.44	+5	+7
20	14.27	9.17	−3	−8	12.92	21.31	−4	+10	8.14	30.62	−3	+11	60.25	37.59	+8	+3
21	14.30	9.55	−5	−4	12.80	21.68	−1	+11	7.92	30.91	0	+11	59.97	37.74	+9	−1
22	14.33	9.93	−7	0	12.68	22.04	+2	+11	7.70	31.20	+4	+10	59.69	37.88	+8	−5
23	14.35	10.30	−7	+4	12.55	22.40	+5	+9	7.47	31.48	+7	+6	59.41	38.02	+6	−8
24	14.37	10.68	−5	+8	12.42	22.76	+8	+5	7.24	31.76	+9	+2	59.12	38.16	+2	−9
25	14.38	11.06	−3	+11	12.28	23.12	+9	+1	7.01	32.03	+9	−2	58.84	38.29	−2	−7
26	14.39	11.44	0	+12	12.14	23.47	+9	−4	6.78	32.30	+7	−6	58.55	38.41	−5	−3
27	14.39	11.82	+3	+11	12.00	23.83	+6	−7	6.54	32.56	+4	−8	58.27	38.53	−7	+1
28	14.39	12.21	+6	+8	11.85	24.18	+3	−9	6.30	32.82	0	−8	57.98	38.65	−7	+6
29	14.38	12.59	+8	+3	11.70	24.53	−1	−8	6.06	33.08	−3	−6	57.69	38.76	−6	+9
30	14.37	12.97	+9	−2					5.82	33.33	−6	−2	57.40	38.86	−3	+10
31	14.35	13.36	+8	−6					5.57	33.58	−8	+3	57.11	38.96	+1	+9
32	14.33	13.74	+5	−9					5.32	33.82	−7	+7				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 23′ 0″	12.424	−12.384	−85° 23′ 10″	12.432	−12.391	−85° 23′ 30″	12.446	−12.406
10	12.432	−12.391	20	12.439	−12.399	40	12.454	−12.414

$\alpha_{1931.0} = 9^h\ 7^m\ 3^s.37$ $\delta_{1931.0} = -85°\ 23'\ 21''.85$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sc) ζ Octantis $5^m.38$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder		Juni AR.	Juni Dekl.	Juni ☾ Glieder		Juli AR.	Juli Dekl.	Juli ☾ Glieder		August AR.	August Dekl.	August ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$9^h 6^m$	85° 23′	$0^s.01$	$0''.01$	$9^h 6^m$	85° 23′	$0^s.01$	$0''.01$	$9^h 6^m$	85° 23′	$0^s.01$	$0''.01$	$9^h 6^m$	85° 23′	$0^s.01$	$0''.01$
1	$57^s.11$	$38''.96$	+1	+9	$48^s.32$	$39''.40$	+6	−7	$41^s.28$	$35''.14$	0	−11	$37^s.20$	$27''.12$	−7	+1
2	56.82	39.05	+4	+5	48.05	39.33	+4	−10	41.09	34.93	−3	−9	37.14	26.82	−7	+5
3	56.54	39.14	+6	0	47.79	39.25	+2	−11	40.90	34.71	−5	−6	37.08	26.52	−5	+8
4	56.25	39.22	+7	−5	47.52	39.17	−1	−11	40.72	34.49	−7	−1	37.02	26.23	−2	+10
5	55.96	39.30	+6	−9	47.26	39.08	−4	−8	40.54	34.27	−7	+3	36.97	25.93	+1	+11
6	55.67	39.38	+3	−11	47.00	38.99	−6	−4	40.36	34.05	−6	+7	36.93	25.63	+4	+9
7	55.38	39.45	0	−12	46.74	38.89	−7	0	40.19	33.82	−4	+9	36.89	25.33	+7	+6
8	55.09	39.51	−3	−10	46.48	38.79	−7	+4	40.02	33.59	−1	+11	36.85	25.02	+9	+2
9	54.80	39.57	−5	−7	46.23	38.68	−5	+8	39.86	33.35	+2	+10	*)36.82	24.72	+9	−2
10	54.51	39.62	−7	−3	45.97	38.57	−3	+10	39.70	33.11	+5	+8	36.79	24.41	+7	−6
11	54.22	39.67	−7	+1	45.72	38.46	0	+11	39.54	32.87	+8	+4	36.77	24.11	+4	−8
12	53.93	39.71	−7	+5	45.47	38.34	+3	+9	39.38	32.63	+9	0	36.75	23.80	0	−8
13	53.65	39.75	−5	+8	45.23	38.21	+6	+6	39.23	32.38	+8	−5	36.74	23.49	−3	−6
14	53.36	39.78	−2	+10	44.99	38.08	+8	+2	39.08	32.13	+6	−8	36.73	23.19	−6	−2
15	53.07	39.80	+1	+10	44.75	37.94	+8	−2	38.94	31.87	+2	−9	36.73	22.88	−8	+2
16	52.78	39.82	+4	+8	44.51	37.80	+7	−6	38.80	31.61	−1	−8	36.74	22.57	−7	+6
17	52.50	39.83	+7	+5	44.27	37.65	+5	−9	38.67	31.35	−5	−5	36.75	22.27	−5	+9
18	52.21	39.84	+8	0	44.04	37.50	+1	−9	38.54	31.08	−7	−1	36.76	21.96	−2	+9
19	51.93	39.84	+8	−4	43.81	37.34	−3	−7	38.42	30.81	−8	+4	36.78	21.65	+2	+7
20	51.64	39.84	+7	−7	43.58	37.18	−6	−3	38.30	30.54	−7	+8	36.80	21.35	+5	+3
21	51.35	39.83	+3	−9	43.36	37.02	−8	+1	38.18	30.26	−4	+10	36.82	21.04	+6	−2
22	51.07	39.82	−1	−8	43.14	36.85	−7	+6	38.07	29.99	0	+9	36.85	20.73	+6	−7
23	50.79	39.80	−4	−5	42.92	36.68	−5	+9	37.96	29.71	+3	+6	36.89	20.43	+5	−10
24	50.51	39.77	−7	−1	42.70	36.50	−2	+10	37.86	29.43	+6	+1	36.93	20.13	+2	−12
25	50.24	39.74	−8	+4	42.49	36.32	+1	+8	37.76	29.15	+7	−4	36.98	19.83	−1	−11
26	49.96	39.71	−7	+8	42.28	36.13	+4	+5	37.67	28.86	+6	−8	37.03	19.53	−4	−9
27	49.68	39.67	−4	+10	42.07	35.94	+6	0	37.58	28.58	+4	−11	37.09	19.23	−6	−5
28	49.41	39.62	−1	+10	41.87	35.75	+7	−5	37.49	28.29	+1	−11	37.15	18.93	−7	−1
29	49.13	39.57	+3	+7	41.67	35.55	+5	−9	37.41	28.00	−2	−10	37.22	18.63	−7	+4
30	48.86	39.52	+5	+3	41.47	35.35	+3	−11	37.33	27.71	−5	−7	37.29	18.33	−6	+7
31	48.59	39.46	+7	−2	41.28	35.14	0	−11	37.26	27.41	−6	−3	37.37	18.04	−3	+10
32	48.32	39.40	+6	−7					37.20	27.12	−7	+1	37.45	17.75	0	+11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 23′ 10″	12.432	−12.391	−85° 23′ 20″	12.439	−12.399	−85° 23′ 30″	12.446	−12.406
20	12.439	−12.399	30	12.446	−12.406	40	12.454	−12.414

$\alpha_{1931.0} = 9^h\ 7^m\ 3^s.37$ $\delta_{1931.0} = -85°\ 23'\ 21''.85$

*) Tag der doppelten unteren Kulmination: Aug. 9

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sc) ζ Octantis $5^m.38$

Tag	September				Oktober				November				Dezember			
	AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in		AR.	Dekl.	☾ Glieder in	
	$9^h\ 6^m$	$-85°\ 23'$	0.01^s	$0.01''$	$9^h\ 6^m$	$-85°\ 23'$	0.01^s	$0.01''$	$9^h\ 6^m$	$-85°\ 23'$	0.01^s	$0.01''$	$9^h\ 6^m$	$-85°\ 23'$	0.01^s	$0.01''$
1	37.45	17.75	0	+11	41.86	10.33	+7	+5	49.44	7.18	+5	−8	57.26	9.92	−4	−4
2	37.53	17.46	+3	+10	42.07	10.14	+9	+1	49.70	7.18	+1	−8	57.50	10.11	−7	0
3	37.62	17.17	+6	+7	42.28	9.96	+8	−3	49.97	7.18	−2	−6	57.73	10.30	−7	+5
4	37.71	16.89	+8	+3	42.49	9.79	+7	−6	50.24	7.19	−5	−2	57.97	10.50	−6	+9
5	37.81	16.60	+9	−1	42.71	9.62	+4	−8	50.51	7.21	−7	+3	58.20	10.71	−3	+11
6	37.91	16.32	+8	−5	42.93	9.45	0	−7	50.78	7.23	−7	+7	58.43	10.92	0	+10
7	38.02	16.04	+6	−7	43.16	9.29	−4	−4	51.05	7.26	−5	+10	58.66	11.14	+4	+7
8	38.13	15.76	+2	−8	43.39	9.13	−6	0	51.32	7.30	−2	+11	58.88	11.36	+6	+2
9	38.25	15.49	−2	−7	43.62	8.98	−7	+4	51.59	7.34	+2	+9	59.10	11.59	+7	−3
10	38.37	15.22	−5	−3	43.85	8.84	−7	+8	51.86	7.39	+5	+5	59.31	11.83	+6	−8
11	38.50	14.95	−7	+1	44.08	8.70	−4	+10	52.12	7.44	+6	0	59.52	12.07	+4	−11
12	38.63	14.68	−8	+5	44.32	8.57	−1	+10	52.39	7.50	+7	−6	59.73	12.31	+1	−12
13	38.76	14.42	−6	+9	44.56	8.44	+3	+7	52.66	7.57	+5	−10	59.94	12.56	−2	−11
14	38.90	14.16	−3	+10	44.80	8.32	+5	+2	52.93	7.65	+3	−12	60.14	12.82	−5	−8
15	39.04	13.90	0	+8	45.04	8.20	+6	−3	53.19	7.73	−1	−12	60.34	13.08	−7	−3
16	39.19	13.65	+4	+5	45.28	8.09	+6	−8	53.46	7.82	−4	−10	60.53	13.34	−8	+1
17	39.34	13.40	+6	0	45.53	7.99	+4	−11	53.73	7.91	−6	−6	60.72	13.61	−7	+5
18	39.50	13.15	+7	−5	45.78	7.89	+1	−13	53.99	8.01	−8	−2	60.91	13.88	−5	+8
19	39.66	12.91	+5	−9	46.03	7.80	−2	−11	54.25	8.12	−8	+2	61.09	14.16	−2	+10
20	39.82	12.67	+3	−12	46.28	7.72	−5	−9	54.51	8.24	−6	+6	61.27	14.44	+1	+9
21	39.99	12.44	0	−12	46.53	7.64	−7	−4	54.76	8.36	−4	+9	61.45	14.73	+4	+8
22	40.16	12.21	−3	−10	46.79	7.57	−8	0	55.02	8.49	−1	+10	61.62	15.02	+6	+5
23	40.34	11.98	−6	−7	47.05	7.50	−7	+4	55.28	8.62	+2	+10	61.79	15.32	+8	+1
24	40.52	11.76	−7	−3	47.31	7.44	−6	+7	55.53	8.76	+5	+7	61.95	15.62	+8	−4
25	40.70	11.54	−8	+2	47.57	7.38	−3	+10	55.79	8.91	+7	+3	62.11	15.92	+7	−7
26	40.88	11.33	−7	+6	47.83	7.33	0	+10	56.04	9.06	+8	−1	62.27	16.23	+4	−9
27	41.07	11.12	−5	+9	48.10	7.29	+3	+8	56.29	9.22	+8	−5	62.42	16.54	0	−8
28	41.26	10.91	−2	+10	48.37	7.25	+6	+6	56.54	9.38	+6	−8	62.57	16.86	−3	−6
29	41.46	10.71	+1	+10	48.63	7.22	+8	+2	56.78	9.55	+3	−9	62.71	17.18	−6	−2
30	41.66	10.52	+5	+8	48.90	7.20	+8	−2	57.02	9.73	−1	−7	62.85	17.50	−7	+3
31	41.86	10.33	+7	+5	49.17	7.19	+7	−6	57.26	9.92	−4	−4	62.98	17.83	−7	+7
32					49.44	7.18	+5	−8					63.11	18.16	−5	+10

δ	sec δ	tg δ	δ	sec δ	tg δ
−85° 23′ 0″	12.424	−12.384	−85° 23′ 10″	12.432	−12.391
10	12.432	−12.391	20	12.439	−12.399

$\alpha_{1931.0} = 9^h\ 7^m\ 3^s.37$ $\delta_{1931.0} = -85°\ 23'\ 21''.85$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sd) ι Octantis $5^m.38$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$12^h 47^m$	−84° 44′	in 0.01 s	in 0.01″	$12^h 47^m$	−84° 44′	in 0.01 s	in 0.01″	$12^h 47^m$	−84° 44′	in 0.01 s	in 0.01″	$12^h 47^m$	−84° 45′	in 0.01 s	in 0.01″
1	24.88	36.31	0	+12	32.44	41.78	+8	−1	37.45	50.55	+7	−3	40.00	2.32	−6	−6
2	25.14	36.41	+3	+10	32.66	42.04	+6	−6	37.58	50.91	+4	−7	40.03	2.71	−8	−3
3	25.40	36.50	+6	+6	32.87	42.30	+3	−9	37.71	51.27	0	−9	40.05	3.10	−8	+1
4	25.65	36.60	+8	+1	33.08	42.57	−1	−10	37.84	51.63	−3	−8	40.07 40.08	3.48 3.87	−6 −3	+5 +7
5	25.91	36.71	+7	−4	33.29	42.85	−4	−8	37.96	52.00	−6	−6	40.09	4.26	+1	+7
6	26.17	36.83	+5	−8	33.50	43.13	−7	−5	38.08	52.36	−8	−2	40.10	4.65	+4	+5
7	26.43	36.95	+2	−10	33.70	43.41	−8	−1	38.20	52.73	−7	+2	40.11	5.03	+7	+2
8	26.68	37.07	−2	−10	33.90	43.69	−7	+3	38.32	53.10	−5	+5	40.11	5.42	+9	−2
9	26.94	37.20	−6	−7	34.10	43.98	−4	+6	38.43	53.47	−2	+7	40.11	5.80	+9	−6
10	27.19	37.34	−8	−3	34.29	44.28	0	+7	38.54	53.84	+2	+6	40.10	6.19	+7	−9
11	27.45	37.48	−8	+1	34.48	44.58	+4	+5	38.64	54.22	+6	+4	40.09	6.58	+4	−10
12	27.70	37.63	−6	+5	34.67	44.88	+7	+3	38.74	54.60	+8	0	40.08	6.96	+1	−10
13	27.95	37.78	−3	+7	34.86	45.19	+8	−1	38.84	54.98	+9	−4	40.06	7.34	−3	−8
14	28.20	37.94	+1	+7	35.04	45.50	+9	−5	38.93	55.36	+8	−7	40.04	7.72	−5	−5
15	28.45	38.11	+5	+5	35.22	45.82	+7	−8	39.02	55.74	+6	−9	40.02	8.09	−7	−1
16	28.70	38.28	+7	+2	35.40	46.14	+5	−9	39.11	56.12	+3	−10	39.99	8.47	−8	+3
17	28.95	38.46	+8	−2	35.58	46.46	+1	−10	39.19	56.50	0	−9	39.96	8.84	−7	+7
18	29.19	38.64	+8	−5	35.75	46.78	−2	−8	39.27	56.88	−4	−7	39.93	9.21	−5	+10
19	29.43	38.83	+6	−8	35.92	47.11	−5	−6	39.35	57.27	−6	−4	39.89	9.58	−2	+11
20	29.68	39.03	+3	−9	36.09	47.44	−7	−2	39.42	57.66	−8	0	39.85	9.95	+1	+11
21	29.92	39.23	0	−9	36.26	47.77	−8	+3	39.49	58.04	−8	+5	39.81	10.32	+5	+9
22	30.16	39.44	−3	−7	36.42	48.11	−8	+7	39.55	58.43	−7	+9	39.76	10.68	+7	+5
23	30.40	39.65	−6	−4	36.58	48.45	−6	+10	39.61	58.82	−4	+11	39.71	11.04	+7	0
24	30.63	39.86	−8	0	36.73	48.79	−3	+12	39.67	59.21	−1	+12	39.66	11.40	+6	−4
25	30.86	40.08	−8	+4	36.88	49.14	0	+12	39.72	59.59	+3	+11	39.60	11.76	+3	−7
26	31.09	40.31	−7	+9	37.03	49.49	+4	+10	39.77	59.98	+6	+8	39.54	12.12	0	−8
27	31.32	40.54	−5	+11	37.17	49.84	+6	+6	39.82	60.37	+7	+3	39.48	12.47	−4	−7
28	31.55	40.78	−2	+13	37.31	50.19	+7	+1	39.86	60.76	+7	−1	39.41	12.82	−7	−4
29	31.78	41.02	+2	+12	37.45	50.55	+7	−3	39.90	61.15	+5	−6	39.34	13.17	−8	0
30	32.00	41.27	+5	+9					39.94	61.54	+2	−8	39.26	13.52	−8	+4
31	32.22	41.52	+7	+4					39.97	61.93	−2	−8	39.18	13.87	−5	+7
32	32.44	41.78	+8	−1					40.00	62.32	−6	−6				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 44′ 30″	10.911	−10.866	−84° 44′ 50″	10.923	−10.877	−84° 45′ 10″	10.935	−10.889
40	10.917	−10.871	60	10.929	−10.883	20	10.940	−10.895

$\alpha_{1931.0} = 12^h\ 47^m\ 31^s.97$ $\delta_{1931.0} = -84°\ 44'\ 56''.87$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sd) ι Octantis $5^m.38$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$12^h\ 47^m$	−84° 45′	in 0.01^s	in $0.01''$	$12^h\ 47^m$	−84° 45′	in 0.01^s	in $0.01''$	$12^h\ 47^m$	−84° 45′	in 0.01^s	in $0.01''$	$12^h\ 47^m$	−84° 45′	in 0.01^s	in $0.01''$
1	$39^s.18$	$13''.87$	−5	+7	$35^s.35$	$22''.90$	+8	+2	$29^s.62$	$27''.55$	+7	−8	$23^s.10$	$27''.14$	−4	−7
2	39.10	14.21	−1	+8	35.18	23.12	+9	−3	29.41	27.62	+4	−10	22.90	27.04	−7	−3
3	39.02	14.55	+3	+7	35.01	23.34	+8	−6	29.20	27.69	+1	−10	22.70	26.93	−8	+1
4	38.93	14.88	+6	+4	34.84	23.56	+6	−9	28.99	27.75	−2	−9	22.50	26.82	−8	+5
5	38.84	15.21	+8	0	34.67	23.78	+3	−10	28.78	27.81	−5	−6	22.31	26.70	−6	+9
6	38.75	15.54	+9	−5	34.50	23.99	0	−10	28.57	27.86	−7	−2	22.12	26.57	−4	+11
7	38.66	15.87	+8	−8	34.33	24.19	−3	−8	28.35	27.90	−8	+3	21.93	26.44	−1	+12
8	38.56	16.20	+5	−10	34.15	24.39	−6	−4	28.14	27.94	−7	+7	21.74	26.31	+3	+11
9	38.46	16.52	+2	−11	33.97	24.59	−8	0	27.93	27.97	−5	+10	21.55	26.17	+6	+7
10	38.36	16.84	−1	−9	33.79	24.78	−8	+4	27.72	28.00	−2	+11	21.36	26.03	+7	+3
11	38.25	17.16	−4	−7	33.61	24.96	−7	+8	27.50	28.02	+1	+11	21.18	25.88	+7	−2
12	38.14	17.47	−7	−3	33.42	25.14	−4	+10	27.29	28.04	+4	+9	21.00	25.72	+5	−6
13	38.03	17.78	−8	+1	33.24	25.32	−1	+11	27.07	28.05	+7	+5	20.82	25.56	+2	−8
14	37.91	18.08	−8	+5	33.05	25.49	+2	+10	26.86	28.05	+8	0	20.64	25.40	−2	−9
15	37.79	18.38	−6	+9	32.86	25.65	+6	+7	26.65	28.05	+7	−4	20.47	25.23	−5	−7
16	37.67	18.68	−3	+11	32.67	25.81	+7	+3	26.44	28.04	+4	−8	20.29	25.05	−8	−3
17	37.54	18.97	0	+11	32.48	25.97	+8	−2	26.22	28.03	+1	−9	20.12	24.87	−8	+1
18	37.41	19.26	+4	+9	32.28	26.12	+6	−6	26.01	28.01	−3	−9	19.95	24.69	−7	+5
19	37.28	19.55	+6	+6	32.08	26.26	+3	−9	25.80	27.98	−6	−6	19.78	24.50	−4	+7
20	37.15	19.83	+8	+1	31.88	26.40	−1	−9	25.58	27.95	−8	−2	19.62	24.31	+1	+7
21	37.02	20.11	+7	−3	31.68	26.53	−5	−7	25.37	27.92	−8	+3	19.46	24.11	+5	+5
22	36.88	20.39	+5	−7	31.48	26.65	−7	−4	25.16	27.88	−6	+6	19.30	23.91	+8	+2
23	36.74	20.66	+1	−9	31.28	26.77	−8	+1	24.95	27.83	−2	+8	19.14	23.71	+9	−2
24	36.59	20.92	−3	−8	31.07	26.89	−7	+5	24.74	27.77	+2	+7	18.99	23.50	+9	−6
25	36.44	21.18	−6	−5	30.87	27.00	−5	+8	24.53	27.71	+6	+5	18.84	23.29	+7	−9
26	36.29	21.44	−8	−1	30.67	27.10	−1	+8	24.33	27.65	+8	+1	18.69	23.07	+4	−11
27	36.14	21.70	−8	+3	30.46	27.20	+3	+7	24.12	27.58	+9	−3	18.55	22.85	0	−10
28	35.99	21.95	−6	+6	30.25	27.30	+7	+4	23.91	27.50	+8	−7	18.41	22.62	−3	−8
29	35.83	22.19	−3	+8	30.04	27.39	+8	−1	23.71	27.42	+6	−10	18.27	22.39	−6	−5
30	35.67	22.43	+1	+8	29.83	27.47	+9	−5	23.50	27.33	+2	−10	18.14	22.16	−7	−1
31	35.51	22.67	+5	+6	29.62	27.55	+7	−8	23.30	27.24	−1	−9	18.01	21.92	−8	+3
32	35.35	22.90	+8	+2					23.10	27.14	−4	−7	17.88	21.68	−7	+7

δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 45′ 10″	10.935	−10.889	−84° 45′ 20″	10.940	−10.895
20	10.940	−10.895	30	10.946	−10.900

$\alpha_{1931.0} = 12^h\ 47^m\ 31^s.97$ $\delta_{1931.0} = -84°\ 44'\ 56''.87$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sd) ι Octantis $5^{m}.38$

Tag	September AR.	September Dekl.	September ☾ Glieder		Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder		November AR.	November Dekl.	November ☾ Glieder		Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder	
		—	in			—	in			—	in			—	in	
	$12^{h}\,47^{m}$	84° 45′	0.01^{s}	$0.01''$	$12^{h}\,47^{m}$	84° 45′	0.01^{s}	$0.01''$	$12^{h}\,47^{m}$	84° 44′	0.01^{s}	$0.01''$	$12^{h}\,47^{m}$	84° 44′	0.01^{s}	$0.01''$
1	$17^{s}.88$	$21''.68$	−7	+7	$15^{s}.79$	$13''.25$	0	+11	$17^{s}.77$	$64''.30$	+7	0	$23^{s}.36$	$58''.63$	0	−8
2	17.75	21.43	−5	+10	15.79	12.95	+4	+10	17.90	64.05	+5	−4	23.59	58.52	−4	−7
3	17.63	21.18	−2	+11	15.79	12.65	+6	+7	18.04	63.80	+2	−7	23.82	58.42	−7	−4
4	17.51	20.93	+2	+11	*)15.80	12.34	+7	+3	18.18	63.56	−1	−7	24.06	58.32	−9	0
5	17.40	20.68	+5	+9	15.81	12.04	+7	−2	18.33	63.32	−5	−6	24.30	58.23	−8	+4
6	17.29	20.42	+7	+5	15.82	11.73	+4	−6	18.48	63.08	−8	−2	24.54	58.15	−6	+8
7	17.18	20.16	+7	+1	15.84	11.43	+1	−7	18.63	62.85	−9	+2	24.78	58.07	−2	+9
8	17.08	19.90	+6	−4	15.86	11.12	−3	−7	18.79	62.62	−8	+6	25.02	58.00	+2	+8
9	16.98	19.63	+3	−7	15.89	10.82	−6	−5	18.95	62.40	−5	+8	25.27	57.94	+6	+5
10	16.88	19.36	−1	−8	15.92	10.52	−8	−1	19.12	62.18	−1	+9	25.52	57.88	+8	+1
11	16.79	19.09	−4	−7	15.96	10.22	−8	+3	19.29	61.96	+3	+7	25.77	57.83	+9	−4
12	16.70	18.82	−7	−4	16.00	9.92	−6	+6	19.46	61.75	+7	+3	26.02	57.78	+8	−8
13	16.61	18.54	−8	0	16.05	9.62	−3	+8	19.64	61.54	+9	−2	26.27	57.74	+6	−11
14	16.53	18.26	−7	+4	16.10	9.33	+1	+7	19.82	61.33	+9	−6	26.52	57.70	+2	−12
15	16.45	17.98	−5	+6	16.16	9.03	+5	+5	20.00	61.13	+7	−10	26.78	57.67	−1	−10
16	16.38	17.70	−1	+7	16.22	8.73	+8	+1	20.19	60.93	+4	−12	27.04	57.65	−4	−8
17	16.31	17.41	+3	+6	16.28	8.44	+9	−4	20.38	60.74	+1	−12	27.30	57.63	−7	−4
18	16.24	17.12	+7	+3	16.35	8.15	+9	−8	20.57	60.56	−2	−10	27.56	57.62	−7	0
19	16.18	16.83	+9	−1	16.42	7.86	+6	−11	20.77	60.38	−5	−7	27.82	57.62	−7	+4
20	16.13	16.54	+9	−5	16.50	7.57	+3	−12	20.97	60.20	−7	−2	28.08	57.62	−5	+8
21	16.08	16.24	+8	−9	16.58	7.29	0	−11	21.17	60.03	−7	+2	28.34	57.63	−3	+10
22	16.03	15.95	+5	−11	16.67	7.01	−4	−8	21.38	59.87	−7	+6	28.60	57.65	0	+10
23	15.98	15.65	+2	−11	16.76	6.73	−6	−5	21.59	59.71	−5	+9	28.86	57.67	+3	+9
24	15.94	15.36	−2	−10	16.86	6.45	−7	−1	21.80	59.55	−2	+10	29.13	57.70	+6	+6
25	15.91	15.06	−5	−7	16.96	6.17	−7	+4	22.02	59.40	+1	+10	29.39	57.74	+7	+2
26	15.88	14.76	−7	−3	17.06	5.89	−6	+7	22.24	59.26	+5	+8	29.65	57.78	+7	−2
27	15.85	14.46	−8	+1	17.17	5.62	−4	+10	22.46	59.12	+7	+5	29.91	57.83	+5	−6
28	15.83	14.16	−7	+6	17.28	5.35	−1	+11	22.68	58.99	+7	+1	30.17	57.88	+2	−8
29	15.81	13.86	−6	+9	17.40	5.08	+3	+10	22.90	58.86	+6	−3	30.44	57.94	−2	−8
30	15.80	13.55	−3	+11	17.52	4.82	+5	+8	23.13	58.74	+4	−7	30.70	58.01	−6	−6
31	15.79	13.25	0	+11	17.64	4.56	+7	+4	23.36	58.63	0	−8	30.96	58.08	−8	−2
32					17.77	4.30	+7	0					31.23	58.16	−9	+2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−84° 44′ 50″	10.923	−10.877	−84° 45′ 0″	10.929	−10.883	−84° 45′ 20″	10.940	−10.895
60	10.929	−10.883	10	10.935	−10.889	30	10.946	−10.900

$\alpha_{1931.0} = 12^{h}\,47^{m}\,31^{s}.97 \qquad \delta_{1931.0} = -84°\,44'\,56''.87$

*) Tag der doppelten unteren Kulmination: Okt. 4

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Se) Octantis 20 G. $6^m.52$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
		—	in			—	in			—	in			—	in	
	$14^h\,51^m$	87° 52′	$0^s.01$	$0''.01$	$14^h\,52^m$	87° 52′	$0^s.01$	$0''.01$	$14^h\,52^m$	87° 52′	$0^s.01$	$0''.01$	$14^h\,52^m$	87° 52′	$0^s.01$	$0''.01$
1	$51^s.43$	$5''.80$	−9	+12	$11^s.70$	$5''.23$	+17	+4	$29^s.92$	$9''.29$	+16	+1	$46^s.01$	$17''.72$	−8	−10
2	52.03	5.70	0	+12	12.38	5.31	+17	−1	30.53	9.50	+14	−5	46.42	18.04	−15	−8
3	52.64	5.60	+9	+10	13.06	5.39	+13	−7	31.13	9.72	+7	−9	46.82	18.37	−18	−4
4	53.25	5.51	+16	+6	13.73	5.47	+5	−10	31.72	9.94	−1	−11	47.22	18.69	−17	+1
5	53.87	5.42	+19	+1	14.40	5.56	−4	−11	32.31	10.17	−10	−10	47.61	19.02	−12	+5
6	54.49	5.34	+17	−5	15.08	5.66	−11	−9	32.90	10.40	−16	−7	47.99	19.35	−3	+7
7	55.12	5.26	+11	−9	15.75	5.76	−16	−6	33.48	10.64	−17	−3	48.36	19.68	+6	+8
8	55.75	5.19	+2	−11	16.42	5.86	−16	−1	34.05	10.88	−14	+2	48.72	20.02	+15	+6
9	56.39	5.12	−7	−11	17.09	5.97	−12	+3	34.62	11.13	−8	+6	49.08	20.35	+21	+3
10	57.03	5.06	−14	−8	17.76	6.09	−5	+6	35.19	11.38	+1	+7	49.43	20.69	+23	0
11	57.67	5.01	−17	−4	18.43	6.21	+4	+8	35.75	11.63	+10	+7	49.78	21.03	+21	−4
12	58.32	4.97	−15	+1	19.09	6.34	+12	+7	36.30	11.89	+17	+5	50.11	21.37	+16	−7
13	58.97	4.93	−10	+5	19.75	6.47	+19	+5	36.85	12.15	+21	+2	50.43	21.72	+9	−9
14	59.63	4.89	−2	+7	20.41	6.61	+21	+1	37.39	12.41	+22	−2	50.75	22.06	0	−10
15	60.29	4.86	+7	+8	21.07	6.76	+20	−3	37.92	12.68	+19	−5	51.06	22.41	−8	−9
16	60.95	4.84	+15	+7	21.72	6.91	+16	−6	38.45	12.95	+13	−8	51.36	22.76	−15	−6
17	61.61	4.82	+19	+4	22.37	7.06	+10	−8	38.97	13.23	+5	−9	51.65	23.10	−19	−2
18	62.27	4.80	+21	0	23.02	7.22	+1	−9	39.48	13.51	−3	−9	51.93	23.45	−20	+2
19	62.93	4.79	+19	−4	23.67	7.38	−7	−9	39.99	13.79	−11	−8	52.20	23.80	−18	+6
20	63.60	4.79	+13	−7	24.31	7.55	−14	−6	40.50	14.07	−17	−5	52.47	24.15	−12	+10
21	64.27	4.79	+6	−9	24.95	7.73	−19	−3	41.00	14.36	−20	0	52.73	24.51	−5	+12
22	64.94	4.80	−2	−9	25.58	7.91	−22	+2	41.49	14.65	−20	+4	52.98	24.87	+4	+12
23	65.62	4.82	−10	−8	26.21	8.10	−20	+6	41.97	14.94	−17	+8	53.22	25.22	+11	+9
24	66.29	4.84	−17	−5	26.84	8.29	−15	+10	42.45	15.24	−10	+11	53.45	25.58	+16	+5
25	66.97	4.87	−21	−1	27.46	8.48	−8	+12	42.92	15.54	−2	+12	53.67	25.94	+16	0
26	67.64	4.90	−22	+3	28.08	8.68	+1	+12	43.38	15.84	+6	+11	53.88	26.30	+12	−5
27	68.32	4.94	−19	+8	28.70	8.88	+9	+10	43.83	16.15	+13	+8	54.08	26.65	+5	−9
28	68.99	4.99	−13	+11	29.31	9.08	+15	+6	44.28	16.46	+16	+3	54.27	27.01	−4	−10
29	69.67	5.04	−4	+13	29.92	9.29	+16	+1	44.72	16.77	+15	−2	54.46	27.37	−13	−8
30	70.34	5.10	+5	+12					45.16	17.08	+9	−7	54.63	27.73	−18	−5
31	71.02	5.16	+13	+8					45.59	17.40	+1	−10	54.80	28.09	−19	−1
32	71.70	5.23	+17	+4					46.01	17.72	−8	−10				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 52′ 0″	26.864	−26.845	−87° 52′ 10″	26.899	−26.880	−87° 52′ 20″	26.934	−26.915
10	26.899	−26.880	20	26.934	−26.915	30	26.969	−26.950

$\alpha_{1931.0} = 14^h\,52^m\,25^s.29$ $\delta_{1931.0} = -87°\,52'\,18''.70$

Obere Kulmination Greenwich

Se) Octantis 20 G. $6^m.52$

Tag	Mai AR	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$14^h 52^m$	$-87° 52'$	in 0.01^s | $0.01''$	$14^h 52^m$	$-87° 52'$	in 0.01^s | $0.01''$	$14^h 52^m$	$-87° 52'$	in 0.01^s | $0.01''$	$14^h 52^m$	$-87° 52'$	in 0.01^s | $0.01''$
1	$54^s.80$	$28''.09$	−19 − 1	$55^s.26$	$39''.30$	+15 + 7	$47^s.47$	$47''.76$	+21 − 3	$33^s.23$	$52''.44$	− 4 −10
2	54.95	28.45	−15 + 4	55.12	39.62	+20 + 3	47.09	47.99	+16 − 7	32.71	52.50	−12 − 7
3	55.10	28.81	− 8 + 7	54.98	39.94	+22 − 1	46.70	48.21	+ 9 − 9	32.19	52.56	−17 − 4
4	55.24	29.17	+ 1 + 8	54.82	40.26	+20 − 5	46.31	48.43	+ 1 −10	31.66	52.62	−20 0
5	55.37	29.53	+11 + 8	54.66	40.58	+14 − 8	45.91	48.64	− 7 − 9	31.14	52.67	−20 + 4
6	{55.49 {55.60	29.89 30.25	+18 +5 +22 +1	54.48	40.90	+ 6 −10	45.51	48.85	−14 − 6	30.61	52.71	−16 + 8
7	55.70	30.61	+22 − 3	54.30	41.22	− 2 −10	45.10	49.05	−19 − 3	30.08	52.74	−10 +11
8	55.79	30.97	+18 − 6	54.11	41.53	−10 − 8	44.68	49.25	−20 + 2	29.55	52.77	− 1 +12
9	55.88	31.33	+12 − 9	53.91	41.84	−16 − 5	44.26	49.44	−18 + 6	29.02	52.80	+ 7 +11
10	55.96	31.69	+ 3 −10	53.70	42.15	−19 − 1	43.83	49.63	−13 +10	28.48	52.82	+13 + 8
11	56.02	32.05	− 5 − 9	53.48	42.45	−20 + 3	43.40	49.81	− 6 +12	27.95	52.83	+16 + 3
12	56.07	32.41	−12 − 7	53.25	42.75	−17 + 7	42.96	49.99	+ 3 +12	27.41	52.84	+15 − 2
13	56.12	32.77	−18 − 4	53.02	43.05	−10 +10	42.51	50.16	+11 + 9	26.88	52.84	+10 − 7
14	56.16	33.12	−20 0	52.78	43.34	− 2 +12	42.06	50.33	+16 + 5	26.35	52.84	+ 2 −10
15	56.19	33.47	−19 + 5	52.53	43.63	+ 6 +11	41.61	50.49	+17 0	25.81	52.83	− 6 −10
16	56.21	33.83	−14 + 8	52.27	43.92	+13 + 8	41.15	50.65	+15 − 5	25.28	52.81	−14 − 8
17	56.22	34.18	− 7 +11	52.01	44.20	+17 + 3	40.68	50.80	+ 8 − 9	24.74	52.79	−17 − 4
18	56.22	34.53	+ 1 +12	51.73	44.48	+17 − 2	40.21	50.95	− 1 −11	24.21	52.76	−17 0
19	56.21	34.88	+ 9 +10	51.45	44.75	+12 − 7	39.74	51.09	− 9 −10	23.68	52.73	−12 + 5
20	56.20	35.23	+15 + 6	51.16	45.02	+ 4 −10	39.26	51.22	−16 − 7	23.15	52.69	− 3 + 8
21	56.17	35.58	+17 + 1	50.86	45.29	− 5 −10	38.78	51.35	−18 − 2	22.62	52.64	+ 6 + 8
22	56.13	35.93	+15 − 4	50.55	45.55	−13 − 8	38.29	51.48	−16 + 2	22.09	52.59	+15 + 7
23	56.08	36.27	+ 9 − 8	50.24	45.81	−18 − 5	37.80	51.60	− 9 + 6	21.57	52.53	+21 + 4
24	56.03	36.62	0 −10	49.92	46.07	−19 0	37.30	51.71	0 + 8	21.04	52.47	+23 0
25	55.97	36.96	− 9 − 9	49.59	46.32	−15 + 5	36.80	51.82	+ 9 + 8	20.52	52.40	+21 − 5
26	55.89	37.30	−16 − 7	49.25	46.57	− 7 + 8	36.30	51.93	+17 + 6	20.00	52.33	+15 − 8
27	55.81	37.64	−19 − 2	48.91	46.82	+ 3 + 9	35.80	52.03	+21 + 2	19.48	52.25	+ 8 −10
28	55.72	37.97	−18 + 2	48.56	47.06	+12 + 8	35.29	52.12	+22 − 2	18.97	52.16	− 1 −10
29	55.62	38.31	−12 + 6	48.20	47.30	+18 + 5	34.78	52.21	+19 − 6	18.46	52.07	−10 − 9
30	55.51	38.64	− 3 + 8	47.84	47.53	+22 + 1	34.27	52.29	+12 − 9	17.95	51.97	−15 − 6
31	55.39	38.97	+ 7 + 9	47.47	47.76	+21 − 3	33.75	52.37	+ 4 −10	17.45	51.86	−19 − 2
32	55.26	39.30	+15 + 7				33.23	52.44	− 4 −10	16.95	51.75	−20 + 3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 52′ 20″	26.934	−26.915	−87° 52′ 30″	26.969	−26.950	−87° 52′ 50″	27.039	−27.021
30	26.969	−26.950	40	27.004	−26.986	60	27.075	−27.057

$\alpha_{1931.0} = 14^h\ 52^m\ 25^s.29$ $\delta_{1931.0} = -87°\ 52'\ 18''.70$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Se) Octantis 20 G. $6^m.52$

Tag	September			Oktober			November			Dezember		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$14^h 52^m$	−87° 52′	in 0.01s | 0.01″	$14^h 51^m$	−87° 52′	in 0.01s | 0.01″	$14^h 51^m$	−87° 52′	in 0.01s | 0.01″	$14^h 52^m$	−87° 52′	in 0.01s | 0.01″
1	16.95	51.75	−20 + 3	64.43	46.16	− 7 +11	59.84	37.18	+15 + 4	5.72	28.41	+ 6 − 8
2	16.45	51.64	−17 + 7	64.13	45.91	+ 1 +12	59.87	36.87	+15 − 1	6.08	28.15	− 3 − 9
3	15.95	51.52	−12 +10	63.84	45.65	+ 8 +10	59.91	36.56	+10 − 5	6.46	27.90	−12 − 8
4	15.46	51.39	− 5 +12	63.56	45.39	+13 + 7	*)59.96	36.25	+ 2 − 8	6.85	27.65	−19 − 5
5	14.97	51.26	+ 3 +12	63.28	45.13	+15 + 2	60.02	35.94	− 7 − 9	7.24	27.41	−21 − 1
6	14.49	51.13	+10 + 9	63.02	44.86	+13 − 3	60.10	35.63	−15 − 7	7.64	27.17	−18 + 4
7	14.01	50.99	+15 + 5	62.76	44.59	+ 7 − 7	60.19	35.32	−20 − 4	8.06	26.93	−12 + 8
8	13.54	50.84	+15 0	62.51	44.32	− 1 − 9	60.29	35.02	−20 + 1	8.48	26.70	− 2 + 9
9	13.07	50.69	+11 − 5	62.27	44.05	−10 − 9	60.40	34.71	−16 + 5	8.91	26.47	+ 8 + 9
10	12.61	50.54	+ 4 − 9	62.05	43.77	−17 − 6	60.52	34.40	− 7 + 8	9.35	26.25	+17 + 6
11	12.15	50.38	− 4 −10	61.84	43.49	−20 − 2	60.66	34.10	+ 3 + 9	9.80	26.03	+22 + 2
12	11.70	50.21	−12 − 9	61.63	43.21	−18 + 2	60.80	33.80	+13 + 7	10.26	25.82	+23 − 2
13	11.25	50.04	−17 − 6	61.44	42.92	−11 + 6	60.96	33.50	+20 + 4	10.73	25.61	+20 − 7
14	10.81	49.86	−18 − 1	61.26	42.63	− 2 + 8	61.13	33.20	+24 0	11.21	25.40	+13 −10
15	10.38	49.68	−15 + 3	61.08	42.34	+ 8 + 8	61.31	32.90	+22 − 5	11.69	25.20	+ 4 −11
16	9.95	49.49	− 7 + 7	60.92	42.05	+17 + 6	61.50	32.60	+17 − 8	12.18	25.00	− 4 −10
17	9.53	49.30	+ 3 + 8	60.77	41.75	+22 + 2	61.71	32.30	+10 −11	12.68	24.81	−11 − 8
18	9.12	49.10	+12 + 7	60.63	41.45	+24 − 2	61.92	32.01	+ 1 −11	13.19	24.62	−16 − 4
19	8.71	48.90	+19 + 5	60.50	41.15	+21 − 6	62.15	31.72	− 7 −10	13.71	24.44	−18 0
20	8.31	48.70	+23 + 1	60.38	40.85	+15 − 9	62.39	31.43	−13 − 7	14.23	24.26	−17 + 4
21	7.92	48.49	+23 − 4	60.27	40.55	+ 7 −11	62.64	31.15	−17 − 3	14.76	24.09	−13 + 8
22	7.54	48.27	+18 − 7	60.17	40.25	− 2 −10	62.90	30.86	−18 + 1	15.30	23.92	− 7 +10
23	7.16	48.05	+11 −10	60.09	39.95	−10 − 9	63.17	30.58	−16 + 6	15.85	23.76	+ 1 +11
24	6.79	47.83	+ 3 −11	60.01	39.64	−15 − 5	63.45	30.30	−11 + 9	16.40	23.60	+ 8 +10
25	6.43	47.61	− 6 −10	59.95	39.33	−18 − 1	63.74	30.02	− 4 +11	16.96	23.45	+14 + 7
26	6.08	47.38	−13 − 7	59.90	39.03	−18 + 3	64.04	29.74	+ 4 +11	17.53	23.30	+17 + 2
27	5.73	47.14	−17 − 3	59.86	38.72	−15 + 7	64.36	29.47	+11 + 9	18.10	23.16	+15 − 3
28	5.39	46.90	−19 + 1	59.84	38.41	− 9 +10	64.69	29.20	+15 + 5	18.68	23.03	+10 − 7
29	5.06	46.66	−18 + 5	59.82	38.10	− 2 +12	65.02	28.93	+16 0	19.27	22.90	+ 2 − 9
30	4.74	46.41	−14 + 9	59.81	37.79	+ 6 +11	65.36	28.67	+13 − 4	19.86	22.77	− 8 −10
31	4.43	46.16	− 7 +11	59.82	37.48	+12 + 8	65.72	28.41	+ 6 − 8	20.46	22.65	−16 − 7
32				59.84	37.18	+15 + 4				21.06	22.54	−20 − 3

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 52′ 20″	26.934	−26.915	−87° 52′ 40″	27.004	−26.986	−87° 52′ 50″	27.039	−27.021
30	26.969	−26.950	50	27.039	−27.021	60	27.075	−27.057

$\alpha_{1931.0} = 14^h\ 52^m\ 25^s.29 \qquad \delta_{1931.0} = -87°\ 52'\ 18''.70$

*) Tag der doppelten unteren Kulmination: Nov. 4

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

σ) Octantis 26 G. 6^m.13

Tag	Januar			Februar			März			April		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	16^h 34^m	—86° 14′	in 0.01^s | 0.01″	16^h 34^m	—86° 14′	in 0.01^s | 0.01″	16^h 34^m	—86° 14′	in 0.01^s | 0.01″	16^h 34^m	—86° 14′	in 0.01^s | 0.01″
1	24.02^s	39.47″	—10 + 9	34.25^s	34.27″	+ 8 + 7	45.45^s	33.68″	+ 9 + 4	57.49^s	37.48″	0 —11
2	24.29	39.23	— 5 +11	34.63	34.18	+10 + 2	45.86	33.73	+ 9 — 2	57.85	37.67	— 4 —10
3	24.56	39.00	0 +11	35.02	34.10	+10 — 4	46.27	33.79	+ 8 — 7	58.20	37.87	— 8 — 8
4	24.84	38.78	+ 6 + 9	35.40	34.02	+ 8 — 9	46.67	33.85	+ 4 —10	58.55	38.07	— 9 — 3
5	25.12	38.56	+10 + 4	35.79	33.94	+ 3 —11	47.08	33.92	— 1 —11	58.89	38.27	— 8 + 2
6	25.41	38.34	+11 — 1	36.18	33.87	— 2 —11	47.49	33.99	— 5 —10	59.23	38.48	— 5 + 6
7	25.70	38.13	+10 — 6	36.57	33.81	— 6 — 9	47.89	34.07	— 8 — 6	59.57	38.69	0 + 9
8	26.00	37.92	+ 6 —10	36.96	33.75	— 8 — 4	48.29	34.15	— 9 — 1	59.91	38.90	+ 5 + 9
9	26.30	37.71	+ 1 —12	37.36	33.69	— 8 + 1	48.69	34.24	— 7 + 4	60.25	39.12	+10 + 8
10	26.60	37.51	— 4 —10	37.76	33.64	— 6 + 5	49.09	34.33	— 3 + 7	60.58	39.34	+12 + 5
11	26.91	37.31	— 7 — 7	38.16	33.60	— 1 + 8	49.49	34.43	+ 2 + 9	60.91	39.57	+13 0
12	27.22	37.12	— 9 — 2	38.56	33.56	+ 3 + 9	49.89	34.53	+ 7 + 9	61.23	39.80	+12 — 4
13	27.54	36.93	— 8 + 3	38.96	33.52	+ 8 + 8	50.29	34.64	+11 + 7	61.55	40.03	+ 9 — 7
14	27.86	36.75	— 5 + 7	39.36	33.49	+11 + 6	50.69	34.75	+13 + 3	61.87	40.26	+ 5 — 9
15	28.19	36.57	0 + 9	39.76	33.47	+12 + 2	51.08	34.86	+13 — 1	62.18	40.50	0 —10
16	28.52	36.40	+ 5 + 9	40.16	33.45	+12 — 2	51.47	34.98	+11 — 5	62.49	40.74	— 5 — 9
17	28.85	36.23	+ 9 + 7	40.57	33.44	+ 9 — 6	51.86	35.11	+ 7 — 8	62.80	40.99	— 9 — 6
18	29.19	36.07	+11 + 4	40.98	33.43	+ 5 — 9	52.25	35.24	+ 3 — 9	63.10	41.24	—12 — 2
19	29.53	35.91	+12 0	41.38	33.43	0 —10	52.64	35.37	— 2 —10	63.40	41.49	—13 + 2
20	29.87	35.75	+10 — 4	41.79	33.43	— 5 — 9	53.03	35.50	— 7 — 8	63.70	41.74	—11 + 7
21	30.22	35.60	+ 7 — 7	42.20	33.44	— 9 — 7	53.41	35.64	—11 — 5	63.99	42.00	— 8 +10
22	30.57	35.45	+ 3 — 9	42.60	33.45	—13 — 3	53.79	35.79	—13 0	64.28	42.26	— 3 +12
23	30.93	35.31	— 2 —10	43.01	33.47	—14 + 2	54.17	35.94	—13 + 4	64.56	42.52	+ 2 +11
24	31.29	35.18	— 7 — 8	43.41	33.49	—13 + 6	54.55	36.09	—11 + 8	64.84	42.79	+ 6 + 8
25	31.65	35.05	—11 — 6	43.82	33.52	—10 +10	54.93	36.25	— 6 +11	65.11	43.06	+ 9 + 3
26	32.01	34.92	—14 — 1	44.23	33.55	— 5 +12	55.30	36.41	— 2 +12	65.38	43.33	+ 9 — 2
27	32.38	34.80	—14 + 3	44.64	33.59	0 +12	55.67	36.58	+ 3 +10	65.65	43.60	+ 7 — 7
28	32.75	34.69	—12 + 8	45.04	33.63	+ 5 + 9	56.04	36.75	+ 7 + 6	65.91	43.87	+ 2 —10
29	33.12	34.58	— 8 +11	45.45	33.68	+ 9 + 4	56.41	36.93	+ 9 + 1	66.17	44.15	— 3 —11
30	33.49	34.47	— 3 +12				56.77	37.11	+ 8 — 4	66.42	44.43	— 7 — 9
31	33.87	34.37	+ 3 +11				57.13	37.29	+ 5 — 9	66.67	44.72	—10 — 5
32	34.25	34.27	+ 8 + 7				57.49	37.48	0 —11			

δ	sec δ	tg δ	δ	sec δ	tg δ
—86° 14′ 30″	15.256	—15.223	—86° 14′ 40″	15.267	—15.234
40	15.267	—15.234	50	15.278	—15.246

$\alpha_{1931.0}$ = 16^h 34^m 47^s.18 $\delta_{1931.0}$ = —86° 14′ 42″.96

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

δ Octantis 26 G. $6^m.13$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$16^h 35^m$	−86° 14′	in 0.01ˢ | 0.01″	$16^h 35^m$	−86° 14′	in 0.01ˢ | 0.01″	$16^h 35^m$	−86° 15′	in 0.01ˢ | 0.01″	$16^h 34^m$	−86° 15′	in 0.01ˢ | 0.01″
	s	″		s	″		s	″		s	″	
1	6.67	44.72	−10 −5	11.95 12.04	54.34 54.66	0 +10 +5 +10	12.02	4.10	+13 +1	67.04	11.64	+2 −10
2	6.91	45.00	−10 0	12.12	54.99	+10 +8	11.93	4.39	+12 −3	66.81	11.82	−3 −10
3	7.15	45.29	−7 +5	12.20	55.31	+12 +4	11.84	4.68	+9 −7	66.57	12.00	−8 −8
4	7.39	45.59	−3 +8	12.27	55.64	+13 0	11.74	4.97	+5 −9	66.33	12.17	−11 −4
5	7.62	45.88	+2 +10	12.33	55.96	+11 −4	11.64	5.25	0 −10	66.09	12.34	−13 0
6	7.85	46.17	+8 +9	12.39	56.29	+8 −8	11.53	5.53	−5 −9	65.85	12.51	−13 +4
7	8.07	46.47	+11 +6	12.44	56.61	+3 −10	11.42	5.81	−9 −6	65.60	12.67	−10 +8
8	8.29	46.77	+13 +2	12.49	56.94	−1 −10	11.30	6.08	−12 −3	65.35	12.83	−6 +11
9	8.50	47.06	+13 −2	12.53	57.26	−6 −8	11.18	6.35	−13 +2	65.10	12.98	−1 +12
10	8.71	47.36	+10 −6	12.57	57.59	−10 −5	11.05	6.62	−12 +6	64.84	13.12	+4 +10
11	8.91	47.67	+6 −9	12.60	57.91	−12 −1	10.92	6.89	−9 +10	64.58	13.26	+7 +6
12	9.11	47.97	+2 −10	12.62	58.23	−12 +3	10.78	7.15	−4 +12	64.31	13.39	+9 +1
13	9.30	48.28	−3 −10	12.64	58.55	−10 +7	10.64	7.41	+1 +11	64.04	13.52	+9 −4
14	9.49	48.59	−8 −7	12.65	58.87	−7 +10	10.49	7.67	+6 +8	63.77	13.64	+6 −9
15	9.67	48.90	−11 −4	12.66	59.19	−1 +12	10.34	7.92	+10 +4	63.50	13.76	+1 −11
16	9.85	49.22	−12 0	12.66	59.50	+4 +10	10.18	8.17	+10 −2	63.23	13.87	−4 −11
17	10.02	49.53	−12 +5	12.66	59.82	+8 +7	10.01	8.42	+8 −7	62.95	13.98	−8 −8
18	10.19	49.84	−9 +9	12.65	60.14	+10 +2	9.84	8.66	+4 −10	62.67	14.08	−9 −3
19	10.35	50.16	−5 +11	12.63	60.45	+10 −4	9.67	8.90	−1 −11	62.39	14.18	−9 +2
20	10.50	50.47	0 +11	12.61	60.77	+7 −8	9.49	9.14	−6 −10	62.11	14.27	−5 +7
21	10.65	50.79	+5 +9	12.59	61.08	+2 −11	9.31	9.37	−9 −6	61.82	14.36	0 +9
22	10.79	51.11	+9 +5	12.56	61.39	−3 −11	9.13	9.60	−10 −1	61.54	14.44	+5 +10
23	10.93	51.43	+10 0	12.52	61.70	−8 −8	8.94	9.82	−8 +4	61.25	14.51	+10 +8
24	11.07	51.75	+8 −5	12.48	62.00	−10 −4	8.74	10.04	−4 +8	60.96	14.58	+13 +4
25	11.20	52.08	+4 −9	12.43	62.30	−10 +1	8.54	10.26	+1 +10	60.67	14.64	+14 0
26	11.32	52.40	−1 −11	12.38	62.61	−7 +6	8.34	10.47	+6 +9	60.38	14.70	+12 −4
27	11.44	52.72	−6 −10	12.32	62.91	−3 +9	8.14	10.68	+11 +7	60.08	14.75	+9 −8
28	11.55	53.04	−9 −7	12.25	63.21	+3 +10	7.93	10.88	+13 +3	59.78	14.79	+4 −10
29	11.66	53.37	−11 −2	12.18	63.51	+8 +9	7.71	11.08	+13 −1	59.48	14.83	−1 −10
30	11.76	53.69	−9 +3	12.10	63.81	+11 +5	7.49	11.27	+11 −5	59.18	14.86	−6 −8
31	11.86	54.01	−5 +7	12.02	64.10	+13 +1	7.27	11.46	+7 −8	58.88	14.89	−10 −6
32	11.95 12.04	54.34 54.66	0 +10 +5 +10				7.04	11.64	+2 −10	58.58	14.91	−12 −2

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−86° 14′ 40″	15.267	−15.234	−86° 14′ 50″	15.278	−15.246	−86° 15′ 10″	15.301	−15.268
50	15.278	−15.246	60	15.290	−15.257	20	15.312	−15.280

$\alpha_{1931.0} = 16^h\ 34^m\ 47^s.18$ $\delta_{1931.0} = -86°\ 14'\ 42''.96$

Sf) Octantis 26 G. 6ᵐ.13

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	16ʰ 34ᵐ	−86° 15′	in 0.01ˢ 0.01″	16ʰ 34ᵐ	−86° 15′	in 0.01ˢ 0.01″	16ʰ 34ᵐ	−86° 14′	in 0.01ˢ 0.01″	16ʰ 34ᵐ	−86° 14′	in 0.01ˢ 0.01″
1	58ˢ.58	14″.91	−12 −2	49ˢ.84	12″.89	−9 +9	43ˢ.63	65″.99	+7 +7	42ˢ.87	56″.88	+7 −6
2	58.28	14.93	−13 +3	49.58	12.73	−5 +11	43.51	65.71	+8 +2	42.95	56.57	+3 −10
3	57.98	14.94	−11 +7	49.32	12.57	0 +12	43.40	65.43	+8 −3	43.03	56.26	−3 −11
4	57.68	14.94	−8 +10	49.06	12.41	+4 +9	43.29	65.14	+5 −7	43.12	55.95	−7 −9
5	57.38	14.94	−4 +12	48.81	12.24	+7 +5	43.19	64.85	0 −10	43.22	55.64	−11 −5
6	57.08	14.93	+1 +11	48.56	12.07	+8 0	43.10	64.56	−5 −10	43.32	55.33	−12 0
7	56.78	14.92	+5 +8	48.32	11.89	+7 −5	43.01	64.27	−9 −8	43.43	55.02	−10 +5
8	56.48	14.90	+8 +3	48.08	11.70	+3 −9	42.93	63.97	−11 −4	43.55	54.71	−5 +8
9	56.18	14.88	+8 −2	47.84	11.51	−2 −11	42.85	63.68	−11 +1	43.67	54.41	+1 +10
10	55.88	14.85	+6 −7	47.60	11.32	−6 −10	42.78	63.38	−8 +6	43.80	54.11	+6 +10
11	55.58	14.81	+2 −10	47.37	11.12	−10 −6	42.72	63.08	−2 +9	43.94	53.81	+11 +7
12	55.28	14.77	−3 −11	47.14	10.91	−10 −2	42.67	62.78	+4 +10	44.09	53.51	+14 +3
13	54.98	14.72	−7 −9	46.92	10.70	−9 +3	42.62	62.47	+9 +8	44.24	53.21	+14 −2
14	54.68	14.67	−9 −5	46.70	10.49	−5 +7	42.58	62.17	+13 +5	44.40	52.92	+11 −6
15	54.39	14.61	−9 0	46.49	10.28	+1 +9	42.54	61.86	+14 0	44.56	52.63	+7 −9
16	54.09	14.54	−7 +5	46.28	10.06	+6 +9	42.51	61.55	+13 −4	44.73	52.35	+3 −10
17	53.79	14.47	−2 +8	46.08	9.83	+11 +7	42.49	61.24	+10 −8	44.91	52.06	−2 −10
18	53.49	14.39	+3 +10	45.88	9.60	+14 +3	42.47	60.93	+6 −10	45.09	51.78	−7 −8
19	53.20	14.31	+8 +9	45.69	9.37	+14 −1	42.46	60.62	+1 −10	45.28	51.50	−10 −4
20	52.91	14.22	+12 +6	45.50	9.13	+12 −6	42.46	60.31	−4 −9	45.47	51.22	−11 0
21	52.62	14.12	+14 +1	45.31	8.89	+9 −9	42.46	59.99	−8 −6	45.67	50.94	−11 +5
22	52.34	14.02	+13 −3	45.13	8.64	+4 −10	42.47	59.68	−11 −3	45.88	50.67	−9 +8
23	52.05	13.92	+11 −7	44.96	8.39	−1 −10	42.49	59.37	−11 +2	46.09	50.40	−5 +11
24	51.77	13.81	+6 −9	44.79	8.14	−6 −8	42.51	59.05	−10 +6	46.31	50.13	0 +11
25	51.49	13.69	+1 −10	44.62	7.88	−10 −5	42.54	58.74	−7 +9	46.53	49.87	+5 +9
26	51.21	13.57	−3 −10	44.46	7.62	−12 −1	42.58	58.43	−3 +11	46.76	49.61	+8 +6
27	50.93	13.45	−8 −7	44.31	7.36	−12 +4	42.62	58.12	+2 +11	47.00	49.35	+9 +1
28	50.65	13.32	−11 −3	44.16	7.09	−10 +8	42.67	57.81	+6 +8	47.24	49.10	+8 −4
29	50.38	13.18	−12 +1	44.02	6.82	−6 +10	42.73	57.50	+8 +4	47.48	48.85	+5 −8
30	50.11	13.04	−12 +6	43.88	6.55	−2 +11	*)42.80	57.19	+9 −1	47.73	48.60	0 −11
31	49.84	12.89	−9 +9	43.75	6.27	+3 +10	42.87	56.88	+7 −6	47.99	48.36	−5 −10
32				43.63	5.99	+7 +7				48.25	48.12	−9 −7

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−86° 14′ 40″	15.267	−15.234	−86° 15′ 0″	15.290	−15.257	−86° 15′ 10″	15 301	−15.268
50	15.278	−15.246	10	15.301	−15.268	20	15.312	−15.280

$\alpha_{1931.0} = 16^h\ 34^m\ 47^s.18$ $\delta_{1931.0} = -86°\ 14'\ 42''.96$

*) Tag der doppelten unteren Kulmination: Nov. 30

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sg) χ Octantis $5^m.22$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$18^h 13^m$	−87° 39′	in $0^s.01$ $0''.01$	$18^h 14^m$	−87° 39′	in $0^s.01$ $0''.01$	$18^h 14^m$	−87° 39′	in $0^s.01$ $0''.01$	$18^h 14^m$	−87° 39′	in $0^s.01$ $0''.01$
1	$55^s.85$	$47''.17$	−20 + 5	$6^s.85$	$38''.30$	+ 7 + 9	$22^s.54$	$33''.21$	+10 + 7	$42^s.55$	$31''.78$	+ 7 −10
2	56.06	46.85	−15 + 9	7.33	38.06	+14 + 5	23.16	33.09	+15 + 2	43.20	31.81	0 −11
3	56.28	46.53	− 6 +11	7.82	37.83	+17 0	23.79	32.98	+16 − 4	43.85	31.85	− 7 −10
4	56.52	46.21	+ 3 +11	8.32	37.60	+16 − 5	24.42	32.87	+12 − 8	44.49	31.89	−12 − 6
5	56.77	45.90	+11 + 7	8.82	37.37	+11 − 9	25.05	32.77	+ 6 −11	45.13	31.94	−13 0
6	57.02	45.58	+17 + 3	9.33	37.15	+ 4 −11	25.68	32.67	− 1 −11	45.77	31.99	−11 + 5
7	57.29	45.27	+18 − 2	9.85	36.93	− 3 −10	26.32	32.58	− 8 − 8	46.41	32.04	− 6 + 9
8	57.57	44.96	+15 − 7	10.37	36.72	− 9 − 7	26.95	32.49	−12 − 4	47.04	32.10	+ 1 +11
9	57.85	44.65	+ 9 −10	10.90	36.51	−12 − 2	27.59	32.40	−12 + 1	47.68	32.16	+ 9 +11
10	58.14	44.34	+ 1 −11	11.44	36.30	−11 + 3	28.23	32.32	− 9 + 6	48.31	32.23	+15 + 8
11	58.45	44.04	− 6 − 9	11.98	36 10	− 7 + 7	28.87	32.24	− 3 +10	48.94	32.30	+19 + 4
12	58.76	43.74	−11 − 5	12.53	35.90	− 1 +10	29.52	32.17	+ 4 +11	49.57	32.38	+20 0
13	59.09	43.44	−13 0	13.08	35.71	+ 6 +11	30.17	32.10	+11 +10	50.19	32.46	+17 − 4
14	59.42	43.14	−11 + 5	13.64	35.52	+12 + 9	30.81	32.04	+16 + 7	50.81	32.55	+12 − 8
15	59.76	42.85	− 6 + 9	14.20	35.33	+16 + 6	31.46	31.98	+19 + 3	51.43	32.64	+ 6 −10
16	60.11	42.56	+ 1 +11	14.77	35.15	+18 + 2	32.11	31.93	+18 − 1	52.05	32.74	− 2 −10
17	60.47	42.27	+ 8 +10	15.34	34.97	+16 − 2	32.76	31.88	+15 − 5	52.66	32.84	− 9 − 9
18	60.84	41.98	+13 + 8	15.92	34.80	+12 − 6	33.41	31.84	+ 9 − 8	53.27	32.94	−16 − 6
19	61.22	41.70	+17 + 4	16.50	34.63	+ 6 − 9	34.07	31.80	+ 2 −10	53.88	33.05	−20 − 2
20	61.60	41.42	+17 0	17.09	34.47	− 2 −10	34.72	31.77	− 5 −10	54.49	33.16	−20 + 2
21	62.00	41.14	+15 − 4	17.68	34.31	− 9 −10	35.37	31.75	−13 − 8	55.09	33.28	−18 + 7
22	62.41	40.86	+10 − 7	18.27	34.16	−16 − 7	36.03	31.73	−19 − 4	55.69	33.40	−12 +10
23	62.82	40.59	+ 3 −10	18.87	34.01	−21 − 3	36.68	31.71	−21 0	56.28	33.53	− 4 +11
24	63.24	40.32	− 5 −10	19.47	33.87	−22 + 1	37.33	31.70	−21 + 5	56.87	33.66	+ 4 + 9
25	63.66	40.06	−12 − 9	20.08	33.73	−20 + 6	37.99	31.69	−17 + 9	57.45	33.79	+11 + 6
26	64.09	39.80	−19 − 6	20.69	33.59	−15 + 9	38.64	31.69	−10 +11	58.03	33.93	+14 + 1
27	64.53	39.54	−22 − 2	21.30	33.46	− 7 +11	39.29	31.69	− 1 +11	58.60	34.07	+14 − 5
28	64.98	39.28	−22 + 3	21.92	33.33	+ 2 +10	39.95	31.70	+ 7 + 8	59.17	34.22	+ 9 − 9
29	65.44	39 03	−18 + 7	22.54	33.21	+10 + 7	40.60	31.71	+12 + 3	59.74	34.37	+ 2 −11
30	65.90	38.78	−11 +10				41.25	31.73	+14 − 2	60.30	34.53	− 5 −11
31	66.37	38.54	− 2 +11				41.90	31.75	+13 − 7	60.86	34.69	−11 − 8
32	66.85	38.30	+ 7 + 9				42.55	31.78	+ 7 −10			

δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 30″	24.475	−24 454	−87° 39′ 40″	24.504	−24.483
40	24.504	−24.483	50	24.533	−24.513

$\alpha_{1931.0} = 18^h\ 14^m\ 31^s.90$ $\delta_{1931.0} = -87°\ 39'\ 40''.95$

Obere Kulmination Greenwich

Sg) χ Octantis $5^m.22$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$18^h 15^m$	$-87° 39'$	in 0.01^s | $0.01''$	$18^h 15^m$	$-87° 39'$	in 0.01^s | $0.01''$	$18^h 15^m$	$-87° 39'$	in 0.01^s | $0.01''$	$18^h 15^m$	$-87° 39'$	in 0.01^s | $0.01''$
1	0.86	34.69	−11 −8	15.18	41.43	−6 +9	22.03	50.50	+17 +6	20.04	59.64	+9 −9
2	1.41	34.86	−14 −3	15.54	41.70	+1 +11	22.11	50.81	+19 +1	19.83	59.90	+2 −10
3	1.96	35.03	−14 +2	15.88	41.98	+9 +10	22.18	51.11	+17 −3	19.61	60.16	−6 −10
4	2.50	35.20	−9 +7	16.21	42.25	+15 +8	22.24	51.42	+13 −7	19.39	60.42	−13 −8
5	3.03	35.38	−2 +10	16.53	42.52	+19 +4	22.29	51.73	+6 −9	19.16	60.68	−18 −5
6	3.56	35.56	+5 +11	16.85	42.80	+19 0	22.33	52.03	−1 −10	18.92	60.94	−21 0
7	4.09	35.74	+12 +10	17.16	43.08	+16 −5	22.36	52.34	−9 −9	18.66	61.19	−20 +4
8	4.61	35.93	+17 +6	17.46	43.35	+11 −8	22.38	52.64	−15 −7	18.40	61.44	−16 +8
9	5.12	36.12	+20 +2	17.75	43.63	+4 −10	22.39	52.95	−20 −3	18.13	61.69	−9 +10
10	5.63	36.31	+18 −2	18.04	43.92	−4 −10	22.39	53.26	−21 +2	17.85	61.93	−1 +10
11	6.14	36.51	+15 −6	18.32	44.21	−11 −8	22.38	53.56	−18 +6	17.57	62.17	+7 +8
12	6.64	36.71	+9 −9	18.58	44.50	−17 −5	22.36	53.86	−13 +9	17.28	62.40	+13 +4
13	7.13	36.91	+1 −10	18.84	44.79	−20 −1	22.33	54.17	−5 +11	16.98	62.63	+15 −1
14	7.62	37.12	−6 −10	19.09	45.08	−20 +3	22.29	54.47	+4 +10	16.67	62.86	+14 −6
15	8.10	37.33	−13 −8	19.33	45.37	−16 +7	22.25	54.77	+11 +7	16.36	63.09	+9 −10
16	8.57	37.55	−18 −4	19.56	45.66	−9 +10	22.20	55.07	+16 +2	16.04	63.31	+1 −11
17	9.03	37.77	−20 +1	19.78	45.96	−1 +11	22.14	55.37	+16 −3	15.71	63.53	−6 −10
18	9.49	37.99	−18 +5	19.99	46.26	+7 +9	22.06	55.66	+13 −8	15.37	63.74	−11 −6
19	9.94	38.22	−14 +9	20.20	46.55	+14 +5	21.97	55.96	+6 −11	15.03	63.95	−13 −1
20	10.39	38.45	−6 +11	20.40	46.85	+16 0	21.88	56.26	−2 −11	14.68	64.15	−12 +4
21	10.83	38.68	+2 +10	20.59	47.15	+15 −6	21.77	56.55	−9 −8	14.32	64.35	−6 +9
22	11.26	38.92	+9 +8	20.76	47.46	+10 −9	21.66	56.84	−13 −4	13.96	64.54	+1 +11
23	11.69	39.16	+14 +3	20.93	47.76	+2 −11	21.54	57.13	−14 +1	13.59	64.73	+9 +11
24	12.11	39.40	+15 −2	21.09	48.06	−6 −10	21.41	57.41	−11 +6	13.22	64.92	+15 +9
25	12.52	39.64	+12 −7	21.24	48.37	−12 −7	21.27	57.70	−4 +10	12.84	65.10	+19 +5
26	12.92	39.89	+5 −11	{21.38 {21.51	48.67 48.98	−15 −2} −14 +3}	21.12	57.98	+3 +11	12.45	65.28	+20 0
27	13.31	40.14	−2 −11	21.63	49.28	−9 +8	20.96	58.26	+11 +10	12.05	65.45	+17 −4
28	13.70	40.39	−9 −9	21.75	49.58	−2 +10	20.80	58.54	+16 +7	11.65	65.62	+12 −8
29	14.08	40.65	−14 −5	21.86	49.89	+6 +11	20.62	58.82	+19 +3	11.24	65.78	+5 −10
30	14.45	40.91	−15 0	21.95	50.20	+13 +9	20.43	59.10	+18 −1	10.83	65.94	−3 −10
31	14.82	41.17	−12 +5	22.03	50.50	+17 +6	20.24	59.37	+15 −6	10.42	66.10	−10 −9
32	15.18	41.43	−6 +9				20.04	59.64	+9 −9	10.00	66.25	−16 −6

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 30″	24.475	−24.454	−87° 39′ 50″	24.533	−24.513	−87° 39′ 60″	24.562	−24.542
40	24.504	−24.483	60	24.562	−24.542	70	24.591	−24.571

$\alpha_{1931.0} = 18^h\ 14^m\ 31^s.90$ $\delta_{1931.0} = -87°\ 39'\ 40''.95$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sg) χ Octantis $5^{m}.22$

Tag	September AR.	Dekl.	☾ Glieder		Oktober AR.	Dekl.	☾ Glieder		November AR.	Dekl.	☾ Glieder		Dezember AR.	Dekl.	☾ Glieder	
	$18^{h}\ 14^{m}$	—$87°\ 40'$	in $0^{s}.01$	in $0''.01$	$18^{h}\ 14^{m}$	—$87°\ 40'$	in $0^{s}.01$	in $0''.01$	$18^{h}\ 14^{m}$	—$87°\ 39'$	in $0^{s}.01$	in $0''.01$	$18^{h}\ 14^{m}$	—$87°\ 39'$	in $0^{s}.01$	in $0''.01$
1	$70^{s}.00$	$6''.25$	−16	−6	$55^{s}.78$	$8''.12$	−19	+5	$41^{s}.76$	$64''.51$	+5	+9	$34^{s}.05$	$56''.60$	+13	−4
2	69.57	6.39	−20	−2	55.29	8.09	−15	+9	41.39	64.31	+11	+5	33.94	56.29	+10	−8
3	69.14	6.53	−21	+3	54.80	8.06	−8	+11	41.02	64.10	+13	0	33.84	55.98	+3	−11
4	68.70	6.66	−18	+7	54.31	8.02	0	+10	40.66	63.88	+12	−6	33.74	55.67	−5	−11
5	68.26	6.79	−13	+10	53.82	7.97	+7	+7	40.30	63.66	+7	−10	33.66	55.35	−12	−9
6	67.81	6.91	−5	+11	53.33	7.92	+12	+3	39.95	63.44	−1	−11	33.59	55.03	−16	−4
7	67.36	7.03	+3	+9	52.84	7.86	+13	−2	39.61	63.21	−8	−10	33.53	54.71	−17	+1
8	66.90	7.14	+10	+6	52.35	7.80	+11	−7	39.28	62.98	−14	−7	33.48	54.39	−13	+6
9	66.44	7.25	+14	+1	51.87	7.73	+5	−11	38.96	62.74	−16	−2	33.44	54.06	−6	+10
10	65.98	7.35	+14	−5	51.39	7.65	−2	−11	38.64	62.50	−15	+3	33.41	53.74	+3	+11
11	65.52	7.45	+10	−9	50.91	7.57	−9	−9	38.33	62.26	−9	+8	33.39	53.41	+11	+10
12	65.05	7.54	+3	−11	50.43	7.48	−14	−5	38.03	62.01	−1	+11	33.38	53.09	+18	+7
13	64.58	7.62	−4	−11	49.96	7.39	−14	0	37.74	61.76	+8	+11	33.39	52.76	+21	+3
14	64.11	7.70	−10	−8	49.49	7.29	−11	+5	37.46	61.50	+15	+9	33.41	52.43	+20	−2
15	63.63	7.77	−13	−3	49.02	7.18	−5	+9	37.18	61.24	+20	+5	33.43	52.10	+17	−6
16	63.15	7.84	−13	+2	48.56	7.07	+3	+11	36.91	60.97	+21	+1	33.46	51.77	+10	−9
17	62.67	7.90	−9	+7	48.10	6.95	+12	+10	36.65	60.70	+19	−4	33.51	51.44	+3	−10
18	62.18	7.95	−1	+10	47.64	6.83	+18	+8	36.41	60.43	+14	−7	33.56	51.11	−5	−9
19	61.70	8.00	+7	+11	47.19	6.70	+21	+4	36.17	60.16	+8	−10	33.63	50.78	−12	−7
20	61.21	8.04	+14	+10	46.74	6.56	+21	−1	35.94	59.88	0	−10	33.71	50.45	−16	−4
21	60.72	8.08	+19	+6	46.30	6.42	+18	−5	35.72	59.60	−7	−9	33.80	50.11	−18	+1
22	60.23	8.11	+21	+2	45.86	6.28	+12	−8	35.51	59.31	−14	−6	33.90	49.78	−17	+5
23	59.74	8.14	+19	−2	45.42	6.13	+4	−10	35.31	59.02	−18	−2	34.01	49.45	−13	+8
24	59.25	8.16	+15	−6	44.99	5.97	−3	−10	35.12	58.73	−18	+2	34.13	49.12	−7	+10
25	58.76	8.17	+8	−9	44.57	5.81	−10	−8	34.93	58.43	−16	+6	34.26	48.79	+1	+10
26	58.26	8.18	+1	−10	44.15	5.64	−16	−5	34.76	58.13	−11	+9	*) 34.40	48.46	+8	+8
27	57.77	8.18	−7	−9	43.74	5.46	−19	0	34.60	57.83	−4	+11	34.56	48.13	+13	+4
28	57.27	8.17	−14	−7	43.33	5.28	−19	+4	34.45	57.53	+3	+10	34.72	47.80	+15	−1
29	56.78	8.16	−18	−3	42.93	5.10	−16	+8	34.31	57.22	+10	+6	34.89	47.47	+13	−6
30	56.28	8.14	−20	+1	42.53	4.91	−10	+10	34.17	56.91	+13	+2	35.07	47.15	+7	−10
31	55.78	8.12	−19	+5	42.14	4.71	−2	+11	34.05	56.60	+13	−4	35.27	46.83	−1	−11
32					41.76	4.51	+5	+9					35.47	46.50	−9	−10

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 39′ 40″	24.504	−24.483	−87° 39′ 50″	24.533	−24.513	−87° 40′ 0″	24.562	−24.542
50	24.533	−24.513	60	24.562	−24.542	10	24.591	−24.571

$\alpha_{1931.0} = 18^{h}\ 14^{m}\ 31^{s}.90$ $\delta_{1931.0} = -87°\ 39'\ 40''.95$

*) Tag der doppelten unteren Kulmination: Dez. 26

Obere Kulmination Greenwich

Sh) σ Octantis $5^m.48$

Tag	Januar				Februar				März				April			
	AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$19^h\ 47^m$	−89° 11′	in 0.01^s	in $0.01''$	$19^h\ 47^m$	−89° 11′	in 0.01^s	in $0.01''$	$19^h\ 48^m$	−89° 11′	in 0.01^s	in $0.01''$	$19^h\ 49^m$	−89° 11′	in 0.01^s	in $0.01''$
1	$35^s.20$	$46''.06$	−60	0	$47^s.00$	$35''.22$	+ 1	+10	$18^s.56$	$26''.72$	+14	+ 8	$8^s.52$	$20''.55$	+38	− 8
2	35.16	45.72	−53	+ 5	47.82	34.88	+26	+ 8	19.98	26.46	+35	+ 5	10.28	20.42	+21	−10
3	35.13	45.37	−36	+ 9	48.67	34.55	+44	+ 3	21.41	26.20	+47	0	12.05	20.30	+ 1	−10
4	35.14	45.02	−11	+10	49.54	34.21	+51	− 2	22.86	25.95	+47	− 5	13.82	20.18	−19	− 8
5	35.17	44.67	+16	+ 9	50.43	33.88	+46	− 6	24.32	25.70	+36	− 9	15.60	20.07	−32	− 3
6	35.24	44.32	+38	+ 6	51.35	33.55	+31	− 9	25.80	25.46	+17	−10	17.38	19.96	−36	+ 2
7	35.33	43.97	+51	+ 2	52.29	33.23	+10	−10	27.30	25.22	− 4	− 9	19.16	19.86	−30	+ 7
8	35.45	43.61	+53	− 4	53.26	32.90	−11	− 8	28.81	24.98	−22	− 6	20.95	19.76	−16	+10
9	35.61	43.26	+42	− 8	54.25	32.58	−27	− 4	30.33	24.75	−33	− 1	22.74	19.66	+ 3	+12
10	35.79	42.90	+23	−10	55.26	32.26	−34	+ 1	31.87	24.52	−33	+ 4	24.54	19.57	+22	+11
11	36.00	42.55	0	−10	56.30	31.94	−32	+ 5	33.42	24.29	−25	+ 8	26.34	19.48	+38	+ 9
12	36.24	42.20	−20	− 7	57.36	31.63	−20	+ 9	34.99	24.07	− 9	+11	28.14	19.40	+48	+ 5
13	36.51	41.84	−33	− 2	58.44	31.32	− 4	+11	36.57	23.85	+10	+12	29.94	19.33	+50	0
14	36.81	41.49	−37	+ 2	59.54	31.01	+15	+11	38.16	23.64	+27	+10	31.74	19.26	+44	− 4
15	37.14	41.13	−30	+ 7	60.67	30.70	+31	+ 9	39.76	23.43	+41	+ 7	33.54	19.19	+32	− 8
16	37.50	40.78	−17	+10	61.82	30.40	+42	+ 5	41.37	23.23	+48	+ 3	35.34	19.13	+14	−10
17	37.89	40.43	+ 1	+11	62.99	30.10	+46	+ 1	43.00	23.03	+47	− 1	37.14	19.08	− 7	−10
18	*)38.30	40.08	+19	+10	64.18	29.80	+43	− 3	44.64	22.83	+38	− 5	38.94	19.03	−29	− 9
19	38.75	39.72	+34	+ 8	65.39	29.50	+32	− 7	46.29	22.64	+24	− 9	40.74	18.98	−46	− 6
20	39.22	39.37	+43	+ 4	66.63	29.21	+15	−10	47.94	22.45	+ 4	−11	42.54	18.94	−56	− 2
21	39.72	39.02	+44	− 1	67.88	28.92	− 6	−11	49.61	22.27	−17	−11	44.34	18.90	−57	+ 2
22	40.24	38.67	+38	− 5	69.16	28.63	−28	−10	51.29	22.09	−38	− 9	46.14	18.87	−48	+ 6
23	40.80	38.32	+25	− 8	70.45	28.35	−47	− 8	52.98	21.92	−53	− 5	47.93	18.84	−29	+ 9
24	41.38	37.98	+ 6	−11	71.75	28.07	−59	− 4	54.67	21.75	−60	− 1	49.73	18.82	− 6	+10
25	41.98	37.63	−15	−11	73.08	27.79	−62	+ 1	56.38	21.58	−57	+ 4	51.52	18.80	+17	+ 8
26	42.62	37.28	−36	−10	74.42	27.52	−54	+ 5	58.09	21.42	−44	+ 7	53.31	18.79	+35	+ 4
27	43.28	36.94	−53	− 6	75.79	27.25	−36	+ 9	59.81	21.26	−22	+ 9	55.09	18.79	+44	− 1
28	43.97	36.59	−61	− 2	77.17	26.98	−12	+10	61.54	21.11	+ 3	+ 9	56.87	18.79	+40	− 6
29	44.69	36.25	−60	+ 3	78.56	26.72	+14	+ 8	63.28	20.96	+26	+ 6	58.65	18.79	+26	−10
30	45.43	35.90	−47	+ 7					65.02	20.82	+40	+ 2	60.42	18.80	+ 6	−11
31	46.20	35.56	−25	+10					66.77	20.68	+45	− 4	62.19	18.81	−15	−10
32	47.00	35.22	+ 1	+10					68.52	20.55	+38	− 8				

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 11′ 10″	70.400	−70.393	−89° 11′ 20″	70.641	−70.634	−89° 11′ 40″	71.128	−71.121
20	70.641	−70.634	30	70.884	−70.877	50	71.374	−71.367

$\alpha_{1931.0} = 19^h\ 48^m\ 58^s.96$ $\delta_{1931.0} = -89°\ 11'\ 31''.69$

*) Tag der doppelten unteren Kulmination: Jan. 18

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sh) σ Octantis $5^m.48$

Tag	Mai AR.	Mai Dekl.	Mai ☾ Glieder	Juni AR.	Juni Dekl.	Juni ☾ Glieder	Juli AR.	Juli Dekl.	Juli ☾ Glieder	August AR.	August Dekl.	August ☾ Glieder
	$19^h\,50^m$	−89° 11′	in 0.01s 0.01″	$19^h\,50^m$	−89° 11′	in 0.01s 0.01″	$19^h\,51^m$	−89° 11′	in 0.01s 0.01″	$19^h\,51^m$	−89° 11′	in 0.01s 0.01″
1	2.19	18.81	−15 −10	52.56	21.60	−32 + 7	26.93	28.09	+16 +11	39.79	37.37	+38 − 6
2	3.95	18.83	−31 − 6	53.98	21.76	−16 +10	27.74	28.36	+34 + 9	39.74	37.67	+22 − 9
3	5.70	18.85	−39 − 1	55.39	21.93	+ 6 +11	28.52	28.63	+46 + 5	39.67	37.97	+ 2 −10
4	7.45	18.88	−36 + 4	56.78	22.10	+25 +10	29.28	28.90	+50 + 1	39.56	38.27	−19 −10
5	9.19	18.91	−25 + 9	58.16	22.27	+40 + 8	30.01	29.17	+45 − 4	39.43	38.57	−39 − 8
6	10.93	18.95	− 6 +11	59.52	22.45	+49 + 4	30.72	29.44	+33 − 7	39.27	38.86	−53 − 5
7	12.66	18.99	+15 +12	60.85	22.63	+50 − 1	31.40	29.72	+15 −10	39.09	39.16	−60 0
8	14.38	19.04	+33 +10	62.17	22.82	+42 − 5	32.06	30.00	− 6 −10	38.88	39.46	−56 + 4
9	16.10	19.09	+45 + 6	63.48	23.01	+27 − 8	32.69	30.28	−27 − 9	38.64	39.75	−42 + 8
10	17.80	19.15	+51 + 2	64.76	23.21	+ 8 −10	33.30	30.56	−45 − 7	38.37	40.05	−21 + 9
11	19.50	19.21	+48 − 2	66.03	23.41	−13 −10	33.88	30.84	−56 − 3	38.08	40.34	+ 4 + 9
12	21.19	19.28	+37 − 6	67.27	23.61	−33 − 9	34.43	31.13	−58 + 2	37.75	40.62	+27 + 6
13	22.87	19.35	+21 − 9	68.50	23.82	−48 − 5	34.96	31.42	−50 + 6	37.40	40.91	+42 + 2
14	24.54	19.43	+ 1 −10	69.70	24.03	−56 − 1	35.46	31.71	−32 + 9	37.02	41.20	+47 − 3
15	26.20	19.51	−20 −10	70.89	24.24	−54 + 4	35.93	32.00	− 8 +10	36.61	41.49	+41 − 7
16	27.85	19.60	−39 − 7	72.05	24.46	−42 + 8	36.38	32.29	+17 + 9	36.18	41.77	+24 −10
17	29.49	19.69	−52 − 4	73.20	24.68	−22 +10	36.80	32.59	+37 + 5	35.72	42.06	+ 3 −10
18	31.12	19.79	−56 + 1	74.32	24.90	+ 3 +10	37.19	32.88	+48 0	35.23	42.34	−18 − 8
19	32.73	19.89	−51 + 5	75.43	25.13	+27 + 7	37.56	33.18	+47 − 5	34.72	42.62	−33 − 4
20	34.34	19.99	−36 + 9	76.51	25.36	+42 + 3	37.90	33.47	+35 − 9	34.18	42.90	−38 + 2
21	35.93	20.10	−14 +10	77.57	25.59	+48 − 2	38.21 / 38.50	33.77 / 34.07	+15 −11 / − 8 −10	33.62	43.17	−32 + 7
22	37.51	20.21	+11 + 9	78.61	25.83	+42 − 7	38.75	34.36	−27 − 7	33.03	43.45	−17 +10
23	39.08	20.33	+32 + 6	79.62	26.07	+26 −10	38.98	34.66	−39 − 2	32.41	43.72	+ 3 +12
24	40.63	20.45	+44 + 1	80.62	26.31	+ 4 −11	39.18	34.96	−39 + 4	31.77	43.99	+23 +11
25	42.17	20.58	+45 − 4	81.59	26.56	−18 − 9	39.35	35.26	−29 + 8	31.10	44.25	+40 + 8
26	43.70	20.71	+34 − 9	82.54	26.81	−35 − 5	39.50	35.56	−12 +11	30.41	44.51	+49 + 4
27	45.21	20.85	+15 −11	83.47	27.06	−41 0	39.62	35.87	+ 9 +11	29.69	44.77	+51 0
28	46.71	20.99	− 8 −11	84.37	27.32	−38 + 5	39.71	36.17	+28 +10	28.95	45.03	+44 − 5
29	48.19	21.14	−27 − 8	85.25	27.57	−25 + 9	39.77	36.47	+42 + 7	28.18	45.28	+30 − 8
30	49.66	21.29	−39 − 3	86.10	27.83	− 5 +11	39.80	36.77	+49 + 2	27.39	45.53	+11 −10
31	51.12	21.44	−41 + 2	86.93	28.09	+16 +11	39.81	37.07	+48 − 2	26.58	45.78	−11 −10
32	52.56	21.60	−32 + 7				39.79	37.37	+38 − 6	25.74	46.02	−31 − 9

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 11′ 10″	70.400	−70.393	−89° 11′ 30″	70.884	−70.877	−89° 11′ 40″	71.128	−71.121
20	70.641	−70.634	40	71.128	−71.121	50	71.374	−71.367

$\alpha_{1931.0} = 19^h\,48^m\,58^s.96$ $\delta_{1931.0} = -89°\,11'\,31''.69$

Sh) σ Octantis $5^{m}.48$

Tag	September AR.	Dekl.	☾ Glieder		Oktober AR.	Dekl.	☾ Glieder		November AR.	Dekl.	☾ Glieder		Dezember AR.	Dekl.	☾ Glieder	
	$19^{h}\,50^{m}$	—89° 11′	in 0.01 s	in 0.01″	$19^{h}\,50^{m}$	—89° 11′	in 0.01 s	in 0.01″	$19^{h}\,49^{m}$	—89° 11′	in 0.01 s	in 0.01″	$19^{h}\,49^{m}$	—89° 11′	in 0.01 s	in 0.01″
1	85.74	46.02	−31	−9	51.40	51.30	−58	+1	66.66	51.46	−3	+9	30.26	46.10	+41	−1
2	84.88	46.26	−49	−6	50.02	51.40	−53	+5	65.25	51.36	+19	+7	29.34	45.84	+40	−6
3	83.99	46.50	−58	−2	48.63	51.49	−39	+8	63.85	51.26	+34	+2	28.44	45.58	+27	−10
4	83.09	46.73	−59	+2	47.23	51.58	−18	+9	62.45	51.15	+40	−3	27.57	45.31	+7	−11
5	82.16	46.96	−50	+6	45.83	51.66	+5	+8	61.07	51.04	+35	−7	26.72	45.04	−15	−11
6	81.20	47.18	−31	+9	44.41	51.73	+26	+5	59.69	50.92	+19	−11	25.89	44.76	−34	−8
7	80.23	47.40	−8	+9	42.99	51.80	+38	0	58.33	50.79	−2	−11	25.09	44.48	−45	−3
8	79.23	47.62	+15	+7	41.56	51.86	+41	−5	56.97	50.66	−22	−9	24.31	44.20	−44	+3
9	78.22	47.83	+34	+3	40.12	51.91	+32	−9	55.63	50.52	−37	−5	23.56	43.91	−32	+8
10	77.18	48.04	+44	−1	38.68	51.96	+14	−11	54.31	50.38	−43	0	22.83	43.62	−12	+11
11	76.13	48.24	+42	−6	37.23	52.00	−7	−11	52.99	50.23	−37	+5	22.13	43.32	+11	+12
12	75.05	48.44	+29	−10	35.78	52.04	−26	−8	51.69	50.08	−22	+10	21.46	43.02	+33	+10
13	73.95	48.63	+9	−11	34.32	52.07	−38	−3	50.41	49.92	0	+12	20.81	42.72	+48	+7
14	72.84	48.82	−12	−9	32.86	52.09	−39	+3	49.14	49.75	+22	+12	20.19	42.41	+55	+2
15	71.71	49.01	−28	−6	31.40	52.11	−29	+8	47.88	49.58	+41	+9	19.60	42.10	+53	−2
16	70.56	49.19	−37	0	29.94	52.12	−11	+11	46.64	49.40	+53	+5	19.04	41.79	+42	−6
17	69.39	49.37	−35	+5	28.47	52.13	+10	+12	45.41	49.22	+56	+1	18.50	41.47	+25	−9
18	68.20	49.54	−22	+9	27.00	52.13	+31	+11	44.21	49.03	+50	−4	18.00	41.16	+5	−10
19	67.00	49.71	−3	+12	25.53	52.12	+47	+8	43.02	48.84	+37	−7	17.52	40.84	−17	−9
20	65.78	49.87	+18	+12	24.07	52.11	+55	+4	41.84	48.64	+18	−9	17.06	40.51	−35	−7
21	64.54	50.03	+37	+10	22.60	52.09	+54	−1	40.69	48.43	−3	−10	16.64	40.19	−48	−3
22	63.29	50.18	+49	+6	21.13	52.07	+45	−5	39.55	48.22	−24	−9	16.24	39.86	−53	+1
23	62.02	50.33	+54	+2	19.66	52.04	+29	−8	38.44	48.01	−41	−6	15.88	39.53	−49	+5
24	60.74	50.47	+50	−3	18.20	52.00	+9	−10	37.34	47.79	−52	−2	15.54	39.19	−37	+8
25	59.44	50.61	+38	−7	16.74	51.95	−13	−10	36.27	47.56	−53	+2	15.22	38.86	−17	+10
26	58.13	50.74	+20	−9	15.28	51.90	−32	−8	35.21	47.33	−46	+6	14.94	38.52	+6	+9
27	56.81	50.86	−1	−10	13.83	51.84	−48	−4	34.18	47.09	−30	+9	14.69	38.18	+27	+6
28	55.47	50.98	−22	−9	12.38	51.78	−55	0	33.16	46.85	−9	+10	14.46	37.84	+41	+2
29	54.12	51.09	−40	−7	10.94	51.71	−54	+4	32.17	46.60	+13	+8	14.27	37.50	+44	−3
30	52.77	51.20	−53	−3	9.51	51.63	−43	+7	31.21	46.35	+31	+4	14.10	37.16	+36	−8
31	51.40	51.30	−58	+1	8.08	51.55	−25	+9	30.26	46.10	+41	−1	13.97	36.81	+18	−11
32					6.66	51.46	−3	+9					13.86	36.46	−4	−11

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−89° 11′ 30″	70.884	−70.877	−89° 11′ 40″	71.128	−71.121	−89° 11′ 50″	71.374	−71.367
40	70.128	−71.121	50	71.374	−71.367	60	71.622	−71.615

$\alpha_{1931.0} = 19^{h}\ 48^{m}\ 58^{s}.96$ $\delta_{1931.0} = -89°\ 11'\ 31''.69$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Si) β Octantis $4^m.34$

Tag	Januar AR.	Januar Dekl.	Januar ☾ Glieder	Februar AR.	Februar Dekl.	Februar ☾ Glieder	März AR.	März Dekl.	März ☾ Glieder	April AR.	April Dekl.	April ☾ Glieder
	$22^h 39^m$	$-81° 44'$	in 0.01^s $0.01''$	$22^h 39^m$	$-81° 44'$	in 0.01^s $0.01''$	$22^h 39^m$	$-81° 44'$	in 0.01^s $0.01''$	$22^h 39^m$	$-81° 44'$	in 0.01^s $0.01''$
1	$5.^s19$	$61.''80$	−6 − 8	$2.^s91$	$52.''81$	−2 + 8	$2.^s71$	$42.''46$	0 + 8	$4.^s59$	$30.''94$	+6 − 1
2	5.08	61.58	−6 − 3	2.87	52.46	+1 + 9	*)2.74	42.08	+3 + 8	4.68	30.59	+4 − 5
3	4.98	61.35	−6 + 2	2.83	52.11	+4 + 8	2.77	41.70	+5 + 6	4.78	30.25	+2 − 8
4	4.89	61.12	−3 + 6	2.79	51.76	+6 + 5	2.80	41.32	+6 + 2	4.88	29.91	0 − 9
5	4.79	60.88	0 + 9	2.76	51.40	+6 + 1	2.84	40.93	+6 − 2	4.98	29.57	−3 − 7
6	4.69	60.63	+2 +10	2.73	51.05	+5 − 3	2.88	40.55	+4 − 6	5.08	29.23	−4 − 3
7	4.60	60.38	+5 + 8	2.70	50.69	+3 − 6	2.92	40.17	+2 − 8	5.19	28.90	−5 + 1
8	4.51	60.13	+6 + 4	2.68	50.33	+1 − 8	2.96	39.78	−1 − 8	5.29	28.57	−4 + 6
9	4.41	59.87	+6 0	2.66	49.97	−2 − 7	3.00	39.40	−3 − 5	5.40	28.24	−2 + 9
10	4.32	59.61	+4 − 4	2.64	49.61	−4 − 4	3.04	39.02	−4 − 1	5.51	27.91	0 +11
11	4.24	59.34	+2 − 7	2.62	49.25	−4 0	3.09	38.64	−4 + 3	5.62	27.59	+2 +12
12	4.15	59.07	0 − 8	2.61	48.88	−4 + 4	3.14	38.26	−4 + 7	5.73	27.27	+4 +10
13	4.07	58.79	−3 − 6	2.60	48.51	−3 + 8	3.19	37.88	−2 +10	5.85	26.95	+5 + 7
14	4.00	58.51	−4 − 3	2.59	48.14	−1 +10	3.25	37.50	0 +11	5.96	26.64	+5 + 3
15	3.92	58.23	−5 + 1	2.58	47.76	+1 +11	3.31	37.12	+2 +11	6.08	26.33	+5 − 2
16	3.84	57.94	−4 + 5	2.57	47.39	+3 +10	3.37	36.75	+4 + 9	6.20	26.02	+4 − 6
17	3.77	57.65	−2 + 9	2.57	47.02	+4 + 7	3.43	36.38	+5 + 5	6.32	25.72	+2 − 9
18	3.70	57.35	0 +10	2.57	46.64	+5 + 3	3.49	36.00	+5 + 1	6.45	25.42	−1 −11
19	3.62	57.05	+2 +10	2.57	46.27	+5 − 1	3.55	35.63	+4 − 4	6.57	25.13	−3 −11
20	3.55	56.74	+3 + 8	2.57	45.89	+4 − 6	3.62	35.26	+3 − 8	6.70	24.84	−5 − 9
21	3.49	56.43	+5 + 5	2.58	45.51	+2 − 9	3.69	34.89	+1 −10	6.83	24.55	−6 − 6
22	3.43	56.12	+5 + 1	2.59	45.13	−1 −11	3.76	34.52	−2 −12	6.96	24.26	−6 − 1
23	3.37	55.80	+4 − 3	2.60	44.75	−3 −12	3.83	34.15	−4 −11	7.09	23.98	−5 + 3
24	3.31	55.48	+3 − 7	2.61	44.37	−5 −11	3.91	33.79	−6 − 9	7.22	23.70	−3 + 6
25	3.25	55.16	+1 −10	2.63	43.99	−6 − 8	3.99	33.43	−7 − 5	7.36	23.43	0 + 8
26	3.20	54.83	−2 −12	2.65	43.61	−7 − 3	4.07	33.07	−6 0	7.49	23.16	+3 + 8
27	3.14	54.50	−4 −12	2.67	43.23	−6 + 2	4.15	32.71	−4 + 4	7.63	22.89	+5 + 5
28	3.09	54.17	−6 −10	2.69	42.84	−3 + 6	4.24	32.35	−1 + 7	7.76	22.63	+6 0
29	3.04	53.83	−7 − 6	2.71	42.46	0 + 8	4.32	31.99	+1 + 8	7.90	22.37	+5 − 4
30	2.99	53.49	−6 − 1				4.41	31.64	+4 + 7	8.04	22.11	+3 − 7
31	2.95	53.15	−5 + 4				4.50	31.29	+5 + 3	8.18	21.86	+1 − 9
32	2.91	52.81	−2 + 8				4.59	30.94	+6 − 1			

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 44′ 20″	6.960	−6.888	−81° 44′ 40″	6.964	−6.892	−81° 44′ 60″	6.969	−6.897
30	6.962	−6.890	50	6.967	−6.895	70	6.971	−6.899

$\alpha_{1931.0} = 22^h\ 39^m\ 7^s.04$ $\delta_{1931.0} = -81°\ 44'\ 39''.33$

*) Tag der doppelten unteren Kulmination: März 2

Si) β Octantis $4^m.34$

Tag	Mai				Juni				Juli				August			
	AR.	Dekl.	☾ Glieder		AR.	Dekl	☾ Glieder		AR.	Dekl.	☾ Glieder		AR.	Dekl.	☾ Glieder	
	$22^h\ 39^m$	—81° 44′	in $0^s.01$	in $0''.01$	$22^h\ 39^m$	—81° 44′	in $0^s.01$	in $0''.01$	$22^h\ 39^m$	—81° 44′	in $0^s.01$	in $0''.01$	$22^h\ 39^m$	—81° 44′	in $0^s.01$	in $0''.01$
1	$8^s.18$	$21''.86$	+1	− 9	$13^s.03$	$16''.39$	−5	+ 1	$17^s.90$	$15''.85$	−1	+11	$21^s.93$	$20''.19$	+5	+ 5
2	8.32	21.61	−2	− 8	13.19	16.29	−4	+ 6	18.05	15.91	+1	+11	22.02	20.40	+5	0
3	8.47	21.37	−4	− 5	13.36	16.20	−2	+ 9	18.20	15.98	+3	+10	22.12	20.62	+4	− 4
4	8.61	21.13	−5	− 1	13.52	16.12	0	+11	18.35	16.06	+5	+ 7	22.22	20.84	+2	− 8
5	8.76	20.90	−4	+ 4	13.69	16.04	+2	+11	18.49	16.14	+5	+ 3	22.31	21.06	0	−10
6	8.91	20.67	−3	+ 8	13.86	15.96	+4	+ 9	18.64	16.23	+5	− 1	22.40	21.28	−2	−11
7	9.05	20.45	−1	+11	14.02	15.89	+5	+ 6	18.79	16.32	+4	− 6	22.50	21.51	−4	−11
8	9.20	20.23	+1	+12	14.19	15.83	+5	+ 2	18.93	16.42	+2	− 9	22.59	21.74	−6	− 8
9	9.35	20.01	+3	+11	14.35	15.77	+5	− 3	19.08	16.52	−1	−11	22.67	21.98	−6	− 4
10	9.50	19.80	+5	+ 8	14.52	15.71	+3	− 7	19.22	16.63	−3	−11	22.75	22.22	−6	0
11	9.66	19.59	+5	+ 4	14.68	15.66	+1	−10	19.36	16.74	−5	−10	22.83	22.46	−4	+ 4
12	9.81	19.39	+5	0	14.85	15.62	−2	−11	19.50	16.86	−6	− 6	22.91	22.71	−1	+ 7
13	9.97	19.19	+4	− 4	15.01	15.59	−4	−11	19.64	16.98	−6	− 2	22.99	22.96	+1	+ 8
14	10.12	19.00	+2	− 8	15.18	15.56	−5	− 8	19.78	17.11	−5	+ 3	23.06	23.21	+4	+ 7
15	10.27	18.81	0	−10	15.34	15.53	−6	− 4	19.91	17.24	−3	+ 6	23.13	23.47	+6	+ 4
16	10.43	18.63	−2	−11	15.50	15.51	−6	0	20.05	17.38	0	+ 9	23.20	23.73	+6	0
17	10.59	18.45	−4	−10	15.67	15.50	−4	+ 5	20.18	17.52	+3	+ 9	23.26	23.99	+5	− 4
18	10.75	18.28	−6	− 7	15.83	15.49	−2	+ 8	20.31	17.67	+5	+ 7	23.32	24.25	+2	− 7
19	10.91	18.11	−6	− 3	16.00	15.48	+1	+ 9	20.44	17.82	+6	+ 3	23.38	24.51	0	− 8
20	11.07	17.95	−5	+ 2	16.16	15.48	+4	+ 8	20.56	17.98	+6	− 2	23.44	24.78	−3	− 7
21	11.23	17.79	−3	+ 6	16.33	15.49	+5	+ 5	20.69	18.14	+4	− 6	23.49	25.05	−4	− 4
22	11.39	17.64	−1	+ 8	16.49	15.50	+6	0	20.81	18.30	+1	− 8	23.54	25.32	−5	+ 1
23	11.55	17.49	+2	+ 8	16.65	15.52	+5	− 4	20.93	18.47	−1	− 9	23.59	25.59	−4	+ 6
24	11.72	17.35	+4	+ 6	16.81	15.54	+3	− 8	21.05	18.65	−4	− 6	23.64	25.87	−2	+ 9
25	11.88	17.21	+5	+ 3	16.96	15.57	0	− 9	21.16	18.83	−5	− 2	23.68	26.15	0	+12
26	12.04	17.08	+5	− 2	17.12	15.60	−2	− 8	21.28	19.01	−5	+ 2	23.72	26.43	+2	+12
27	12.20	16.95	+4	− 6	17.28	15.64	−4	− 5	21.39	19.19	−4	+ 7	23.76	26.71	+4	+10
28	12.37	16.83	+2	− 9	17.43	15.69	−5	− 1	21.50	19.38	−2	+10	23.80	26.99	+5	+ 7
29	12.53	16.71	−1	− 9	17.59	15.74	−5	+ 4	21.61	19.58	+1	+11	23.83	27.28	+5	+ 2
30	12.70	16.60	−3	− 7	17.74	15.79	−3	+ 8	21.72	19.78	+3	+11	23.86	27.57	+5	− 2
31	12.86	16.49	−5	− 4	17.90	15.85	−1	+11	21.83	19.98	+4	+ 8	23.89	27.85	+3	− 6
32	13.03	16.39	−5	+ 1					21.93	20.19	+5	+ 5	23.91 23.93	28.14 28.43	+1 −1	− 9 −11

δ	sec δ	tg δ	δ	sec δ	tg δ
—81° 44′ 10″	6.957	—6.885	—81° 44′ 20″	6 960	—6.888
20	6.960	—6.888	30	6.962	—6.890

$\alpha_{1931.0} = 22^h\ 39^m\ 7^s.04$ $\delta_{1931.0} = -81°\ 44'\ 39''.33$

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Si) β Octantis $4^m.34$

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	22h 39m	−81° 44′	in 0.01s 0.01″	22h 39m	−81° 44′	in 0.01s 0.01″	22h 39m	−81° 44′	in 0.01s 0.01″	22h 39m	−81° 44′	in 0.01s 0.01″
1	{23.91s / 23.93	28.14″ / 28.43	+1 − 9 / −1 −11}	23.26s	37.05″	−6 − 7	20.28s	43.63″	−2 + 6	16.24s	45.27″	+4 + 5
2	23.95	28.72	−4 −11	23.20	37.32	−6 − 3	20.16	43.77	+1 + 7	16.10	45.23	+5 + 1
3	23.97	29.01	−5 − 9	23.13	37.58	−6 + 1	20.03	43.91	+3 + 6	15.96	45.18	+5 − 4
4	23.98	29.30	−6 − 6	23.06	37.84	−4 + 5	19.90	44.04	+5 + 3	15.82	45.13	+3 − 8
5	23.99	29.59	−6 − 2	22.99	38.10	−1 + 7	19.78	44.16	+5 − 1	15.69	45.07	+1 −10
6	24.00	29.89	−5 + 2	22.92	38.35	+2 + 7	19.65	44.28	+4 − 5	15.55	45.00	−2 −10
7	24.00	30.18	−3 + 6	22.84	38.60	+4 + 5	19.52	44.39	+2 − 9	15.41	44.93	−4 − 8
8	24.00	30.47	0 + 8	22.76	38.85	+5 + 2	19.39	44.50	0 −10	15.28	44.85	−5 − 3
9	24.00	30.76	+3 + 7	22.68	39.10	+5 − 2	19.26	44.60	−3 − 9	15.14	44.76	−5 + 2
10	23.99	31.06	+5 + 5	22.60	39.34	+4 − 6	19.13	44.69	−4 − 5	15.01	44.67	−4 + 7
11	23.98	31.35	+6 + 1	22.51	39.58	+2 − 9	18.99	44.78	−5 − 1	14.88	44.57	−2 +11
12	23.97	31.64	+5 − 3	22.42	39.82	−1 − 9	18.86	44.87	−4 + 5	14.74	44.47	+1 +12
13	23.96	31.93	+3 − 7	22.33	40.05	−3 − 7	18.73	44.95	−3 + 9	14.61	44.36	+3 +12
14	23.95	32.23	+1 − 8	22.24	40.28	−5 − 3	18.59	45.02	0 +12	14.48	44.24	+5 + 9
15	23.93	32.52	−2 − 8	22.15	40.50	−5 + 2	18.45	45.08	+2 +13	14.35	44.12	+6 + 5
16	23.91	32.82	−4 − 5	22.06	40.72	−4 + 7	18.31	45.14	+4 +11	14.23	43.99	+6 + 1
17	23.88	33.11	−5 − 1	21.96	40.94	−2 +11	18.17	45.19	+5 + 8	14.10	43.86	+5 − 3
18	23.85	33.40	−4 + 4	21.86	41.15	+1 +13	18.04	45.24	+6 + 4	13.98	43.72	+3 − 7
19	23.82	33.69	−3 + 9	21.76	41.36	+3 +12	17.90	45.28	+5 − 1	13.86	43.57	0 − 9
20	23.79	33.98	−1 +12	21.66	41.56	+5 +10	17.76	45.31	+4 − 5	13.73	43.42	−2 −10
21	23.76	34.26	+1 +12	21.55	41.76	+6 + 6	17.62	45.34	+2 − 8	13.61	43.26	−4 − 9
22	23.72	34.55	+4 +11	21.44	41.95	+6 + 2	17.49	45.36	0 −10	13.49	43.10	−6 − 7
23	23.68	34.83	+5 + 8	21.33	42.14	+5 − 2	17.35	45.38	−3 −10	13.37	42.93	−6 − 3
24	23.64	35.12	+5 + 4	21.22	42.33	+3 − 6	17.21	45.39	−5 − 8	13.25	42.75	−5 + 1
25	23.59	35.40	+5 0	21.11	42.51	+1 − 9	17.07	45.39	−6 − 5	13.14	42.57	−4 + 5
26	23.54	35.68	+4 − 4	21.00	42.69	−1 −10	16.93	45.39	−6 − 1	13.02	42.38	−1 + 8
27	23.49	35.96	+2 − 8	20.88	42.86	−4 −10	16.79	45.38	−5 + 3	12.91	42.19	+1 + 8
28	23.44	36.24	0 −10	20.76	43.02	−5 − 8	16.65	45.36	−3 + 6	12.80	41.99	+4 + 7
29	23.38	36.51	−2 −11	20.64	43.18	−6 − 4	16.51	45.33	0 + 8	12.69	41.78	+5 + 3
30	23.32	36.78	−5 −10	20.52	43.34	−6 0	16.37	45.30	+2 + 7	12.58	41.57	+5 − 1
31	23.26	37.05	−6 − 7	20.40	43.49	−5 + 3	16.24	45.27	+4 + 5	12.47	41.36	+4 − 6
32				20.28	43.63	−2 + 6				12.36	41.14	+2 − 9

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−81° 44′ 20″	6.960	−6.888	−81° 44′ 30″	6.962	−6.890	−81° 44′ 40″	6.964	−6.892
30	6.962	−6.890	40	6.964	−6.892	50	6.967	−6.895

$\alpha_{1931.0} = 22^h\ 39^m\ 7^s.04$ $\delta_{1931.0} = -81°\ 44'\ 39''.33$

Obere Kulmination Greenwich

Sk) τ Octantis $5^m.56$

Tag	Januar			Februar			März			April		
	AR.	Dekl.	🌙 Glieder	AR.	Dekl.	🌙 Glieder	AR.	Dekl.	🌙 Glieder	AR.	Dekl.	🌙 Glieder
	$23^h 18^m$	$-87° 51'$	in 0.01^s $0.01''$	$23^h 18^m$	$-87° 51'$	in 0.01^s $0.01''$	$23^h 18^m$	$-87° 51'$	in 0.01^s $0.01''$	$23^h 18^m$	$-87° 51'$	in 0.01^s $0.01''$
1	$27^s.67$	$65''.09$	−17 −9	$15^s.14$	$56''.70$	−12 +7	$10^s.50$	$46''.33$	−6 +8	$13^s.52$	$34''.22$	+21 +1
2	27.16	64.89	−21 −5	14.86	56.36	−4 +9	10.46	45.93	+4 +9	13.76	33.85	+19 −3
3	26.66	64.69	−21 0	14.58	56.02	+8 +9	10.44	45.54	+13 +7	14.00	33.48	+13 −6
4	26.17	64.48	−16 +5	14.31	55.67	+16 +7	10.42	45.14	+19 +4	14.25	33.11	+5 −8
5	25.69	64.27	−8 +9	14.05	55.32	+21 +3	10.41	44.75	+21 0	14.51	32.74	−5 −7
6	25.21	64.05	+2 +10	13.80	54.97	+20 −1	10.41	44.35	+18 −4	14.78	32.38	−13 −4
7	24.74	63.83	+12 +9	13.56	54.62	+15 −5	10.42	43.96	+10 −7	15.05	32.01	−17 0
8	24.27	63.60	+19 +6	13.33	54.27	+7 −7	10.44	43.56	+1 −7	15.33	31.65	−18 +4
9	23.81	63.36	+22 +2	13.10	53.91	−2 −7	10.47	43.17	−8 −6	15.62	31.29	−15 +8
10	23.36	63.12	+19 −3	12.88	53.55	−11 −5	10.51	42.77	−15 −2	15.92	30.93	−9 +10
11	22.91	62.88	+12 −6	12.67	53.19	−16 −1	10.55	42.38	−18 +2	16.22	30.58	−1 +11
12	22.47	62.63	+3 −7	12.48	52.82	−18 +3	*)10.60	41.98	−17 +6	16.53	30.23	+7 +10
13	22.04	62.37	−6 −7	12.29	52.45	−16 +7	10.66	41.59	−13 +9	16.85	29.88	+13 +8
14	21.61	62.11	−14 −4	12.11	52.08	−11 +9	10.73	41.19	−6 +11	17.18	29.54	+17 +4
15	21.19	61.85	−18 0	11.94	51.71	−3 +11	10.81	40.80	+1 +11	17.52	29.20	+18 0
16	20.77	61.58	−18 +4	11.78	51.33	+4 +10	10.90	40.40	+9 +9	17.86	28.86	+16 −4
17	20.36	61.31	−14 +7	11.63	50.96	+11 +8	11.00	40.01	+14 +6	18.21	28.52	+12 −8
18	19.96	61.03	−8 +10	11.49	50.58	+16 +4	11.11	39.62	+17 +2	18.56	28.19	+4 −10
19	19.57	60.75	−1 +10	11.35	50.20	+18 0	11.23	39.23	+18 −2	18.92	27.86	−4 −11
20	19.18	60.46	+7 +9	11.22	49.82	+17 −4	11.36	38.83	+15 −6	19.29	27.53	−12 −10
21	18.80	60.17	+13 +6	11.10	49.44	+13 −8	11.49	38.44	+9 −10	19.67	27.21	−18 −7
22	18.43	59.87	+17 +3	11.00	49.05	+6 −11	11.63	38.05	+1 −12	20.05	26.89	−21 −3
23	18.07	59.57	+18 −2	10.90	48.66	−3 −12	11.78	37.66	−8 −12	20.44	26.57	−19 +1
24	17.71	59.27	+16 −6	10.81	48.28	−11 −12	11.94	37.28	−15 −10	20.84	26.26	−14 +5
25	17.36	58.96	+11 −10	10.73	47.89	−18 −9	12.11	36.89	−20 −6	21.24	25.95	−5 +8
26	17.02	58.65	+3 −12	10.66	47.50	−22 −5	12.29	36.50	−22 −2	21.65	25.64	+5 +8
27	16.69	58.33	−6 −12	10.60	47.11	−21 0	12.47	36.12	−18 +2	22.06	25.34	+14 +6
28	16.37	58.01	−14 −11	10.55	46.72	−15 +4	12.66	35.74	−10 +6	22.48	25.04	+19 +2
29	16.05	57.69	−19 −7	10.50	46.33	−6 +8	12.86	35.36	−1 +8	22.91	24.74	+20 −2
30	15.74	57.36	−22 −3				13.07	34.98	+10 +7	23.34	24.45	+16 −6
31	15.43	57.03	−19 +2				13.29	34.60	+17 +5	23.78	24.16	+8 −8
32	15.14	56.70	−12 +7				13.52	34.22	+21 +1			

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 51′ 20″	26.724	−26.706	−87° 51′ 40″	26.794	−26.775	−87° 51′ 60″	26.864	−26.845
30	26.759	−26.740	50	26.829	−26.810	70	26.899	−26.880

$\alpha_{1931.0} = 23^h\ 18^m\ 26^s.83$ $\delta_{1931.0} = -87°\ 51'\ 42''.38$

*) Tag der doppelten unteren Kulmination: März 12

Scheinbare Sternörter 1931

Obere Kulmination Greenwich

Sk) τ Octantis $5^{m}.56$

Tag	Mai			Juni			Juli			August		
	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder	AR.	Dekl.	☾ Glieder
	$23^{h}\ 18^{m}$	−87° 51′	in 0.01^{s} | $0.01''$	$23^{h}\ 18^{m}$	−87° 51′	in 0.01^{s} | $0.01''$	$23^{h}\ 18^{m}$	−87° 51′	in 0.01^{s} | $0.01''$	$23^{h}\ 19^{m}$	−87° 51′	in 0.01^{s} | $0.01''$
1	$23^{s}.78$	$24''.16$	+8 −8	$39^{s}.75$	$17''.43$	−18 0	$57^{s}.20$	$15''.66$	−10 +10	$13^{s}.09$	$19''.02$	+16 +6
2	24.23	23.87	−1 −8	40.32	17.29	−18 +4	57.77	15.69	−2 +11	13.51	19.21	+19 +2
3	24.68	23.59	−10 −6	40.89	17.16	−14 +8	58.34	15.72	+6 +10	13.93	19.40	+18 −2
4	25.13	23.32	−16 −3	41.46	17.03	−7 +11	58.91	15.76	+12 +8	14.34	19.60	+14 −6
5	25.59	23.05	−19 +2	42.04	16.91	+1 +11	59.47	15.81	+17 +5	14.74	19.80	+8 −10
6	26.06	22.78	−17 +6	42.62	16.79	+8 +10	60.03	15.86	+18 0	15.14	20.01	0 −11
7	26.53	22.51	−12 +10	43.20	16.68	+14 +7	60.59	15.92	+17 −4	15.53	20.22	−8 −11
8	27.01	22.25	−4 +11	43.78	16.57	+18 +3	61.14	15.98	+12 −8	15.91	20.43	−16 −10
9	27.49	22.00	+4 +11	44.36	16.47	+18 −1	61.69	16.05	+5 −10	16.28	20.65	−20 −6
10	27.98	21.75	+11 +9	44.95	16.37	+15 −5	62.24	16.12	−3 −11	16.64	20.87	−21 −2
11	28.47	21.50	+16 +6	45.54	16.28	+10 −9	62.78	16.20	−11 −11	17.00	21.10	−17 +3
12	28.97	21.26	+18 +2	46.12	16.19	+2 −11	63.32	16.28	−18 −8	17.35	21.33	−10 +6
13	29.47	21.02	+18 −3	46.71	16.11	−6 −11	63.85	16.37	−21 −4	17.69	21.56	0 +8
14	29.98	20.79	+14 −7	47.29	16.04	−14 −9	64.38	16.47	−21 +1	18.02	21.80	+9 +8
15	30.49	20.56	+7 −10	47.88	15.97	−19 −6	64.91	16.57	−15 +5	18.34	22.04	+17 +5
16	31.00	20.34	−1 −11	48.47	15.91	−21 −2	65.43	16.67	−6 +8	18.66	22.28	+21 +2
17	31.52	20.12	−9 −11	49.06	15.85	−18 +3	65.95	16.78	+4 +9	18.97	22.53	+20 −3
18	32.04	19.91	−16 −8	49.64	15.80	−12 +7	66.47	16.90	+13 +8	19.27	22.78	+14 −6
19	32.57	19.70	−20 −5	50.23	15.76	−2 +9	66.98	17.02	+19 +4	19.56	23.03	+5 −8
20	33.10	19.49	−21 0	50.82	15.72	+8 +9	67.49	17.14	+21 0	19.84	23.29	−5 −7
21	33.64	19.29	−16 +4	51.41	15.69	+16 +6	67.99	17.27	+18 −4	20.11	23.55	−13 −5
22	34.18	19.10	−8 +8	51.99	15.66	+20 +2	68.48	17.40	+11 −7	20.37	23.81	−18 −1
23	34.72	18.91	+2 +9	52.57	15.64	+20 −2	68.97	17.54	+1 −8	20.62	24.07	−19 +4
24	35.27	18.72	+12 +7	53.16	15.62	+15 −6	69.45	17.69	−9 −7	20.86	24.34	−15 +8
25	35.82	18.54	+18 +4	53.74	15.61	+7 −9	69.93	17.84	−16 −4	21.09	24.61	−8 +11
26	36.37	18.37	+21 0	54.32	15.60	−3 −9	70.40	17.99	−19 +1	21.31	24.88	0 +12
27	36.93	18.20	+18 −5	54.90	15.60	−12 −6	70.86	18.15	−18 +5	21.53	25.16	+8 +10
28	37.49	18.03	+12 −8	55.48	15.61	−18 −2	71.32	18.32	−13 +9	21.74	25.44	+14 +8
29	38.05	17.87	+3 −9	56.05	15.62	−19 +2	71.77	18.49	−5 +11	21.94	25.72	+18 +4
30	38.61	17.72	−7 −8	56.63	15.64	−16 +7	72.22	18.66	+3 +11	22.13	26.00	+18 0
31	39.18	17.57	−14 −5	57.20	15.66	−10 +10	72.66	18.84	+10 +9	22.30	26.29	+16 −5
32	39.75	17.43	−18 0				73.09	19.02	+16 +6	22.46	26.57	+10 −8

δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 51′ 10″	26.690	−26.671	−87° 51′ 20″	26.724	−26.706
20	26.724	−26.706	30	26.759	−26.740

$\alpha_{1931.0} = 23^{h}\ 18^{m}\ 26^{s}.83$ $\delta_{1931.0} = -87°\ 51'\ 42''.38$

Obere Kulmination Greenwich

Sk) τ Octantis $5^m.56$

Tag	September AR.	September Dekl.	September ☾ Glieder	Oktober AR.	Oktober Dekl.	Oktober ☾ Glieder	November AR.	November Dekl.	November ☾ Glieder	Dezember AR.	Dezember Dekl.	Dezember ☾ Glieder
	$23^h\,19^m$	−87° 51′	in 0.01s | 0.01″	$23^h\,19^m$	−87° 51′	in 0.01s | 0.01″	$23^h\,18^m$	−87° 51′	in 0.01s | 0.01″	$23^h\,18^m$	−87° 51′	in 0.01s | 0.01″
1	22.46	26.57	+10 − 8	22.26	35.81	−17 − 9	72.29	43.40	−12 + 5	56.49	46.31	+12 + 6
2	22.62	26.86	+ 3 −11	22.08	36.10	−21 − 5	71.83	43.58	− 3 + 7	55.92	46.31	+18 + 3
3	22.76	27.15	− 5 −11	21.89	36.39	−21 − 1	71.37	43.76	+ 7 + 7	55.34	46.30	+20 − 2
4	22.89	27.44	−13 −10	21.69	36.68	−16 + 3	70.90	43.93	+15 + 5	54.77	46.29	+17 − 6
5	23.01	27.74	−19 − 7	21.48	36.96	− 9 + 6	70.43	44.09	+20 + 1	54.20	46.27	+10 − 9
6	23.12	28.03	−21 − 4	21.26	37.24	+ 1 + 7	69.95	44.25	+19 − 4	53.62	46.24	0 −10
7	23.22	28.33	−20 + 1	21.03	37.52	+11 + 6	69.46	44.40	+14 − 8	53.04	46.21	− 9 − 8
8	23.31	28.63	−14 + 5	20.79	37.79	+18 + 3	68.97	44.55	+ 6 −10	52.47	46.17	−16 − 5
9	23.39	28.93	− 4 + 7	20.54	38.06	+20 − 1	68.47	44.69	− 4 − 9	51.90	46.12	−19 0
10	23.46	29.23	+ 5 + 8	20.28	38.33	+18 − 5	67.97	44.83	−12 − 7	51.32	46.07	−18 + 5
11	23.51 / 23.56	29.53 / 29.83	+14 + 6 / +20 + 3	20.02	38.60	+12 − 8	67.46	44.96	−18 − 2	50.75	46.01	−13 +10
12	23.60	30.14	+21 − 2	19.74	38.87	+ 2 − 9	66.95	45.09	−19 + 3	50.18	45.95	− 5 +12
13	23.62	30.44	+17 − 5	19.45	39.13	− 7 − 7	66.43	45.21	−16 + 8	49.61	45.88	+ 4 +12
14	23.64	30.74	+ 9 − 8	19.15	39.39	−15 − 4	65.90	45.32	− 9 +11	49.04	45.80	+12 +10
15	23.64	31.04	− 1 − 8	18.84	39.65	−18 0	65.37	45.43	− 1 +12	48.48	45.71	+17 + 7
16	23.63	31.34	−10 − 6	18.52	39.90	−18 + 5	64.84	45.53	+ 7 +12	47.91	45.62	+19 + 3
17	23.62	31.64	−17 − 2	18.20	40.15	−13 +10	64.30	45.62	+14 + 9	47.35	45.52	+18 − 2
18	23.59	31.94	−19 + 3	17.86	40.40	− 6 +12	63.76	45.71	+18 + 5	46.79	45.42	+14 − 6
19	23.55	32.24	−17 + 7	17.51	40.64	+ 2 +12	63.22	45.79	+19 + 1	46.23	45.31	+ 7 − 8
20	23.50	32.54	−11 +10	17.16	40.88	+10 +11	62.67	45.87	+17 − 3	45.68	45.19	− 1 −10
21	23.44	32.84	− 3 +12	16.80	41.11	+16 + 8	62.12	45.94	+12 − 7	45.13	45.06	− 9 −10
22	23.37	33.14	+ 5 +12	16.43	41.34	+19 + 3	61.57	46.01	+ 5 − 9	44.58	44.93	−15 − 8
23	23.29	33.44	+12 + 9	16.05	41.57	+18 − 1	61.01	46.07	− 4 −10	44.03	44.80	−20 − 4
24	23.20	33.74	+17 + 6	15.66	41.79	+15 − 5	60.45	46.12	−12 − 9	43.49	44.66	−21 0
25	23.10	34.04	+19 + 1	15.27	42.01	+ 9 − 8	59.89	46.17	−18 − 7	42.95	44.51	−17 + 4
26	22.98	34.34	+17 − 3	14.87	42.22	+ 1 −10	59.33	46.21	−21 − 3	42.41	44.36	−10 + 7
27	22.86	34.64	+13 − 7	14.46	42.43	− 7 −10	58.76	46.24	−20 + 1	41.88	44.20	− 1 + 8
28	22.72	34.94	+ 6 −10	14.04	42.63	−14 − 9	58.20	46.27	−15 + 5	41.35	44.04	+ 9 + 8
29	22.57	35.23	− 2 −11	13.61	42.83	−19 − 6	57.63	46.29	− 7 + 7	40.83	43.87	+16 + 5
30	22.42	35.52	−10 −11	13.18	43.03	−21 − 2	57.06	46.30	+ 3 + 8	40.31	43.69	+20 0
31	22.26	35.81	−17 − 9	12.74	43.22	−19 + 2	56.49	46.31	+12 + 6	39.80	43.50	+19 − 4
32				12.29	43.40	−12 + 5				39.29	43.31	+13 − 8

δ	sec δ	tg δ	δ	sec δ	tg δ	δ	sec δ	tg δ
−87° 51′ 20″	26.724	−26.706	−87° 51′ 30″	26.759	−26.740	−87° 51′ 40″	26.794	−26.775
30	26.759	−26.740	40	26.794	−26.775	50	26.829	−26.810

$\alpha_{1931.0} = 23^h\ 18^m\ 26^s.83$ $\delta_{1931.0} = -87°\ 51'\ 42''.38$

Polnahe Sterne 1931

Scheinbare Koordinaten für 12h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10.56m		BD +89° 3 Gr. 9.06m		BD +89° 37 Gr. 10.06m		CPD −89° 38 Gr. 9.5m		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0.01"	
Jan. 0	−117.18"	+68.33"	+ 83.93"	+852.66"	−899.86"	−354.33"	−229.86"	−302.28"	+12	0
1	117.20	67.99	83.91	852.32	899.88	354.67	229.72	302.60	+11	+ 4
2	117.21	67.65	83.90	851.98	899.89	355.01	229.57	302.92	+ 9	+ 8
3	117.22	67.31	83.89	851.64	899.90	355.35	229.42	303.24	+ 4	+11
4	117.22	66.98	83.89	851.30	899.90	355.69	229.27	303.55	− 1	+11
5	−117.21	+66.65	+ 83.90	+850.96	−899.89	−356.03	−229.11	−303.86	− 6	+ 8
6	117.20	66.32	83.91	850.62	899.88	356.37	228.94	304.17	− 9	+ 4
7	117.18	65.98	83.93	850.28	899.86	356.71	228.77	304.48	−10	− 2
8	117.15	65.65	83.95	849.95	899.83	357.05	228.59	304.79	− 9	− 7
9	117.12	65.32	83.98	849.62	899.79	357.38	228.40	305.09	− 5	−10
10	−117.08	+64.99	+ 84.02	+849.29	−899.75	−357.71	−228.21	−305.39	− 1	−11
11	117.03	64.66	84.07	848.96	899.71	358.04	228.02	305.69	+ 3	−10
12	116.98	64.33	84.12	848.63	899.66	358.37	227.82	305.99	+ 6	− 6
13	116.93	64.00	84.18	848.31	899.60	358.70	227.61	306.28	+ 7	− 1
14	116.86	63.68	84.24	847.99	899.54	359.02	227.40	306.57	+ 6	+ 4
15	−116.79	+63.36	+ 84.31	+847.67	−899.47	−359.34	−227.18	−306.86	+ 4	+ 8
16	116.72	63.04	84.39	847.35	899.39	359.66	226.95	307.14	0	+10
17	116.64	62.72	84.47	847.03	899.31	359.98	226.72	307.42	− 4	+10
18	116.55	62.40	84.56	846.71	899.22	360.30	226.48	307.70	− 7	+ 8
19	116.45	62.09	84.65	846.40	899.12	360.61	226.24	307.98	− 9	+ 5
20	−116.35	+61.78	+ 84.75	+846.09	−899.02	−360.92	−226.00	−308.25	−10	+ 1
21	116.24	61.47	84.86	845.78	898.91	361.23	225.75	308.52	− 9	− 4
22	116.12	61.16	84.98	845.48	898.79	361.54	225.49	308.78	− 6	− 7
23	116.00	60.86	85.10	845.18	898.67	361.84	225.23	309.04	− 2	− 9
24	115.88	60.56	85.22	844.88	898.55	362.14	224.97	309.30	+ 2	−10
25	−115.75	+60.26	+ 85.36	+844.58	−898.42	−362.44	−224.70	−309.56	+ 6	− 9
26	115.61	59.97	85.50	844.29	898.28	362.74	224.42	309.81	+10	− 6
27	115.46	59.68	85.65	844.00	898.13	363.03	224.14	310.06	+12	− 2
28	115.31	59.39	85.80	843.71	897.98	363.32	223.86	310.31	+12	+ 3
29	115.15	59.11	85.95	843.43	897.83	363.60	223.57	310.55	+11	+ 7
30	−114.99	+58.83	+ 86.11	+843.15	−897.67	−363.88	−223.28	−310.79	+ 7	+10
31	114.82	58.56	86.28	842.88	897.50	364.16	222.98	311.02	+ 2	+11
Febr. 1	114.65	58.29	86.45	842.61	897.33	364.43	222.68	311.25	− 3	+10
2	114.47	58.02	86.63	842.34	897.15	364.70	222.38	311.47	− 7	+ 6
3	114.29	57.75	86.81	842.07	896.97	364.97	222.07	311.69	− 9	+ 1
4	−114.10	+57.49	+ 87.00	+841.81	−896.78	−365.23	−221.76	−311.91	− 9	− 5
5	113.91	57.23	87.19	841.55	896.59	365.49	221.44	312.12	− 7	− 9
6	−113.71	+56.98	+ 87.39	+841.30	−896.39	−365.74	−221.12	−312.33	− 3	−11
Mittl. Ort	− 99.12"	+79.29"	+101.98"	+863.59"	−881.77"	−343.41"	−207.47"	−307.47"		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in $0''.01$	
Febr. 6	−113.71	+56.98	+ 87.39	+841.30	−896.39	−365.74	−221.12	−312.33	− 3	−11
7	113.51	56.73	87.59	841.05	896.18	365.99	220.80	312.53	+ 1	−10
8	113.30	56.48	87.80	840.80	895.97	366.24	220.47	312.73	+ 5	− 7
9	113.09	56.24	88.01	840.56	895.76	366.48	220.14	312.93	+ 7	− 3
10	112.87	56.01	88.23	840.33	895.54	366.71	219.80	313.12	+ 6	+ 2
11	−112.65	+55.78	+ 88.45	+840.10	−895.32	−366.94	−219.46	−313.31	+ 4	+ 7
12	112.42	55.55	88.68	839.87	895.09	367.17	219.12	313.49	+ 1	+10
13	112.19	55.33	88.91	839.65	894.86	367.39	218.78	313.67	− 3	+11
14	111.96	55.12	89.14	839.44	894.63	367.60	218.43	313.84	− 7	+ 9
15	111.72	54.91	89.38	839.23	894.39	367.81	218.08	314.01	− 9	+ 6
16	−111.48	+54.70	+ 89.62	+839.03	−894.15	−368.01	−217.73	−314.18	−10	+ 2
17	111.23	54.50	89.87	838.83	893.90	368.21	217.37	314.34	− 9	− 2
18	110.98	54.31	90.12	838.64	893.65	368.41	217.01	314.49	− 7	− 6
19	110.72	54.12	90.37	838.45	893.39	368.60	216.65	314.64	− 4	− 9
20	110.46	53.93	90.63	838.27	893.13	368.78	216.29	314.79	0	−10
21	−110.20	+53.75	+ 90.89	+838.09	−892.87	−368.96	−215.92	−314.93	+ 5	−10
22	109.94	53.58	91.16	837.92	892.61	369.13	215.55	315.06	+ 9	− 7
23	109.67	53.41	91.43	837.75	892.34	369.30	215.18	315.19	+11	− 4
24	109.40	53.25	91.70	837.59	892.07	369.46	214.81	315.32	+12	+ 1
25	109.12	53.10	91.97	837.43	891.79	369.62	214.43	315.44	+12	+ 5
26	−108.84	+52.95	+ 92.25	+837.28	−891.51	−369.77	−214.05	−315.56	+ 9	+ 9
27	108.56	52.81	92.53	837.14	891.23	369.92	213.67	315.67	+ 4	+11
28	108.28	52.67	92.81	837.00	890.95	370.06	213.29	315.78	− 1	+10
März 1	107.99	52.54	93.10	836.87	890.66	370.19	212.91	315.88	− 5	+ 7
2	107.70	52.41	93.39	836.74	890.37	370.32	212.53	315.98	− 8	+ 3
3	−107.41	+52.29	+ 93.68	+836.62	−890.08	−370.44	−212.15	−316.07	− 9	− 3
4	107.12	52.17	93.97	836.50	889.79	370.56	211.76	316.16	− 7	− 8
5	106.83	52.06	94.26	836.39	889.50	370.67	211.37	316.24	− 4	−11
6	106.53	51.96	94.56	836.29	889.20	370.77	210.98	316.32	0	−11
7	106.23	51.86	94.86	836.19	888.90	370.87	210.59	316.39	+ 4	− 9
8	−105.93	+51.77	+ 95.16	+836.10	−888.60	−370.96	−210.20	−316.46	+ 6	− 5
9	105.63	51.69	95.46	836.02	888.30	371.04	209.81	316.52	+ 7	0
10	105.33	51.61	95.76	835.94	888.00	371.12	209.42	316.58	+ 5	+ 5
11	105.03	51.54	96.06	835.87	887.70	371.19	209.03	316.64	+ 2	+ 9
12	104.72	51.47	96.37	835.81	887.40	371.26	208.64	316.69	− 2	+11
13	−104.41	+51.41	+ 96.68	+835.75	−887.09	−371.32	−208.24	−316.73	− 6	+10
14	104.10	51.36	96.99	835.69	886.78	371.37	207.84	316.77	− 9	+ 8
15	−103.79	+51.31	+ 97.30	+835.65	−886.47	−371.42	−207.44	−316.80	−10	+ 4
Mittl. Ort	− 99′.12	+79″.29	+101″.98	+863″.59	−881″.77	−343″.41	−207″.47	−307″.47		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1931

Scheinbare Koordinaten für 12ʰ Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10ᵐ56		BD +89° 3 Gr. 9ᵐ06		BD +89° 37 Gr. 10ᵐ06		CPD −89° 38 Gr. 9ᵐ5		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0″01	
März 15	−103″79	+51″31	+ 97″30	+835″65	−886″47	−371″42	−207″44	−316″80	−10	+ 4
16	103.48	51.27	97.61	835.61	886.16	371.46	207.04	316.83	−10	0
17	103.17	51.23	97.92	835.57	885.85	371.50	206.64	316.85	− 9	− 4
18	102.86	51.20	98.23	835.54	885.54	371.53	206.24	316.87	− 6	− 8
19	102.55	51.18	98.54	835.52	885.23	371.55	205.84	316.88	− 2	−10
20	−102.24	+51.17	+ 98.85	+835.51	−884.92	−371.56	−205.44	−316.89	+ 3	−10
21	101.93	51.16	99.16	835.50	884.61	371.57	205.04	316.89	+ 7	− 8
22	101.62	51.16	99.47	835.50	884.30	371.57	204.64	316.89	+10	− 5
23 {	101.31	51.17	99.78	835.51	883.99	371.56	204.24	316.89	+12	− 1
23 {	101.00	51.18	100.09	835.52	883.68	371.55	203.84	316.88	+12	+ 4
24	−100.69	+51.19	+100.40	+835.53	−883.37	−371.54	−203.45	−316.86	+10	+ 8
25	100.38	51.21	100.71	835.55	883.06	371.52	203.06	316.84	+ 6	+10
26	100.08	51.24	101.01	835.58	882.75	371.49	202.67	316.81	+ 1	+11
27	99.77	51.28	101.32	835.62	882.44	371.46	202.27	316.78	− 3	+ 9
28	99.47	51.32	101.62	835.66	882.13	371.42	201.88	316.74	− 7	+ 4
29	− 99.17	+51.36	+101.92	+835.70	−881.82	−371.37	−201.49	−316.70	− 8	− 1
30	98.87	51.42	102.22	835.76	881.52	371.32	201.10	316.66	− 7	− 6
31	98.57	51.48	102.52	835.82	881.22	371.26	200.71	316.61	− 5	−10
April 1	98.27	51.54	102.82	835.88	880.92	371.19	200.32	316.55	− 1	−11
2	97.97	51.61	103.12	835.95	880.62	371.12	199.93	316.49	+ 3	−10
3	− 97.67	+51.69	+103.42	+836.03	−880.32	−371.05	−199.54	−316.43	+ 6	− 7
4	97.37	51.77	103.72	836.11	880.03	370.97	199.15	316.36	+ 7	− 2
5	97.07	51.86	104.01	836.20	879.74	370.88	198.77	316.28	+ 6	+ 3
6	96.78	51.96	104.30	836.30	879.45	370.79	198.38	316.20	+ 4	+ 8
7	96.49	52.06	104.59	836.40	879.16	370.69	198.00	316.11	0	+10
8	− 96.21	+52.17	+104.88	+836.51	−878.87	−370.58	−197.62	−316.02	− 5	+11
9	95.93	52.28	105.16	836.62	878.58	370.47	197.24	315.93	− 8	+ 9
10	95.65	52.40	105.44	836.74	878.30	370.35	196.86	315.83	−10	+ 5
11	95.37	52.52	105.72	836.86	878.02	370.23	196.49	315.73	−11	+ 1
12	95.09	52.65	106.00	836.99	877.74	370.10	196.12	315.62	−10	− 3
13	− 94.81	+52.78	+106.27	+837.12	−877.47	−369.97	−195.75	−315.51	− 7	− 7
14	94.54	52.92	106.54	837.26	877.20	369.83	195.38	315.40	− 4	− 9
15	94.27	53.06	106.81	837.40	876.93	369.68	195.01	315.28	+ 1	−10
16	94.01	53.21	107.07	837.55	876.66	369.53	194.64	315.15	+ 5	− 9
17	93.75	53.37	107.33	837.70	876.40	369.38	194.28	315.02	+ 8	− 7
18	− 93.49	+53.53	+107.59	+837.86	−876.14	−369.22	−193.92	−314.89	+11	− 3
19	93.23	53.70	107.85	838.03	875.89	369.05	193.56	314.75	+11	+ 2
20	− 92.98	+53.87	+108.10	+838.20	−875.64	−368.88	−193.21	−314.61	+10	+ 6
Mittl. Ort	− 99″12	+79″29	+101″98	+863″59	−881″77	−343″41	−207″47	−307″47		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1931

Scheinbare Koordinaten für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^{m}.56$		BD +89° 3 Gr. $9^{m}.06$		BD +89° 37 Gr. $10^{m}.06$		CPD −89° 38 Gr. $9^{m}.5$		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0.″01	
April 20	−92.″98	+53.″87	+108.″10	+838.″20	−875.″64	−368.″88	−193.″21	−314.″61	+10	+ 6
21	92.73	54.04	108.35	838.37	875.39	368.71	192.86	314.46	+ 7	+10
22	92.49	54.22	108.59	838.55	875.14	368.53	192.51	314.31	+ 3	+11
23	92.25	54.40	108.83	838.74	874.90	368.34	192.16	314.15	− 2	+10
24	92.01	54.59	109.07	838.93	874.66	368.15	191.82	313.99	− 6	+ 7
25	−91.78	+54.78	+109.30	+839.12	−874.43	−367.96	−191.48	−313.83	− 8	+ 2
26	91.55	54.98	109.53	839.32	874.20	367.76	191.14	313.66	− 8	− 4
27	91.33	55.18	109.75	839.53	873.98	367.56	190.80	313.49	− 6	− 8
28	91.11	55.39	109.97	839.74	873.76	367.35	190.47	313.31	− 2	−11
29	90.89	55.60	110.18	839.95	873.54	367.14	190.14	313.13	+ 2	−11
30	−90.68	+55.82	+110.39	+840.16	−873.33	−366.92	−189.82	−312.94	+ 6	− 8
Mai 1	90.47	56.04	110.60	840.38	873.12	366.70	189.50	312.75	+ 8	− 4
2	90.27	56.26	110.80	840.60	872.92	366.48	189.18	312.56	+ 8	+ 1
3	90.07	56.49	111.00	840.83	872.72	366.25	188.86	312.37	+ 6	+ 6
4	89.88	56.72	111.19	841.06	872.53	366.02	188.55	312.17	+ 2	+10
5	−89.69	+56.96	+111.38	+841.29	−872.34	−365.78	−188.24	−311.97	− 3	+11
6	89.51	57.20	111.56	841.53	872.15	365.55	187.93	311.76	− 7	+10
7	89.33	57.44	111.74	841.78	871.97	365.31	187.63	311.55	−10	+ 7
8	89.15	57.69	111.92	842.03	871.80	365.07	187.33	311.34	−11	+ 3
9	88.98	57.94	112.09	842.28	871.63	364.82	187.04	311.12	−11	− 2
10	−88.82	+58.19	+112.25	+842.53	−871.46	−364.57	−186.75	−310.90	− 9	− 6
11	88.66	58.45	112.41	842.79	871.30	364.31	186.46	310.68	− 5	− 8
12	88.50	58.71	112.56	843.05	871.15	364.05	186.18	310.45	− 1	−10
13	88.35	58.97	112.71	843.31	871.00	363.78	185.90	310.22	+ 3	−10
14	88.21	59.24	112.85	843.57	870.85	363.51	185.63	309.99	+ 7	− 8
15	−88.07	+59.51	+112.99	+843.84	−870.71	−363.24	−185.36	−309.75	+10	− 4
16	87.94	59.78	113.12	844.11	870.57	362.97	185.10	309.51	+11	0
17	87.81	60.06	113.25	844.39	870.44	362.69	184.84	309.26	+10	+ 5
18	87.69	60.34	113.37	844.67	870.32	362.41	184.58	309.01	+ 8	+ 9
19	87.57	60.62	113.49	844.95	870.20	362.13	184.33	308.76	+ 4	+11
20	−87.46	+60.90	+113.60	+845.23	−870.09	−361.85	−184.08	−308.51	− 1	+11
21	87.35	61.18	113.71	845.51	869.98	361.57	183.84	308.25	− 5	+ 8
22	87.25	61.47	113.81	845.79	869.88	361.29	183.60	307.99	− 8	+ 4
23	87.16	61.76	113.90	846.08	869.78	361.00	183.37	307.73	− 9	− 2
24	87.07	62.05	113.99	846.37	869.69	360.71	183.14	307.47	− 7	− 7
25	−86.98	+62.34	+114.08	+846.66	−869.61	−360.42	−182.91	−307.20	− 4	−10
26	86.90	62.63	114.16	846.95	869.53	360.13	182.69	306.93	+ 1	−11
27	−86.83	+62.93	+114.23	+847.24	−869.46	−359.83	−182.48	−306.66	+ 5	−10
Mittl. Ort	−99.″12	+79.″29	+101.″98	+863.″59	−881.″77	−343.″41	−207.″47	−307.″47		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1931

Scheinbare Koordinaten für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10^m.56		BD +89° 3 Gr. 9^m.06		BD +89° 37 Gr. 10^m.06		CPD —89° 38 Gr. 9^m.5		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0".01	
Mai 27	—86".83	+62".93	+114".23	+847".24	—869".46	—359".83	—182".48	—306".66	+ 5	—10
28	86.76	63.23	114.30	847.54	869.39	359.53	182.27	306.38	+ 8	— 6
29	86.70	63.53	114.36	847.84	869.33	359.23	182.06	306.10	+ 9	— 1
30	86.64	63.83	114.42	848.14	869.27	358.93	181.86	305.82	+ 7	+ 4
31	86.59	64.13	114.47	848.44	869.22	358.63	181.67	305.54	+ 4	+ 9
Juni 1	—86.54	+64.43	+114.51	+848.74	—869.17	—358.33	—181.48	—305.26	0	+11
2	86.50	64.73	114.55	849.05	869.13	358.03	181.29	304.97	— 5	+10
3	86.47	65.04	114.58	849.36	869.10	357.72	181.11	304.69	— 8	+ 8
4	86.44	65.35	114.61	849.67	869.07	357.41	180.94	304.40	—10	+ 4
5	86.42	65.66	114.63	849.98	869.05	357.11	180.77	304.11	—11	0
6	—86.40	+65.97	+114.65	+850.29	—869.03	—356.80	—180.61	—303.81	— 9	— 4
7	86.39	66.28	114.66	850.60	869.02	356.49	180.45	303.51	— 7	— 8
8	86.39	66.59	114.66	850.91	869.01	356.18	180.29	303.21	— 3	—10
9	86.39	66.90	114.66	851.22	869.01	355.87	180.14	302.91	+ 2	—10
10	86.40	67.21	114.65	851.53	869.02	355.56	180.00	302.61	+ 6	— 9
11	—86.41	+67.52	+114.64	+851.84	—869.03	—355.25	—179.86	—302.31	+ 9	— 6
12	86.43	67.83	114.62	852.15	869.05	354.94	179.73	302.01	+11	— 2
13	86.45	68.14	114.59	852.46	869.07	354.62	179.60	301.71	+11	+ 3
14	86.48	68.46	114.56	852.77	869.10	354.30	179.48	301.41	+ 9	+ 7
15	86.52	68.78	114.52	853.09	869.13	353.98	179.36	301.10	+ 6	+10
16	—86.56	+69.09	+114.48	+853.40	—869.17	—353.67	—179.25	—300.79	+ 1	+11
17	86.60	69.40	114.44	853.71	869.22	353.36	179.14	300.48	— 4	+ 9
18	86.66	69.71	114.38	854.02	869.27	353.05	179.04	300.17	— 7	+ 6
19	86.72	70.02	114.32	854.33	869.33	352.74	178.95	299.86	— 9	+ 1
20	86.78	70.33	114.26	854.64	869.40	352.43	178.86	299.55	— 8	— 5
21	—86.85	+70.64	+114.19	+854.95	—869.47	—352.12	—178.77	—299.24	— 6	— 9
22	86.93	70.95	114.11	855.26	869.54	351.81	178.70	298.93	— 2	—11
23	87.01	71.26	114.03	855.57	869.62	351.50	178.63	298.62	+ 3	—11
24	87.10	71.57	113.94	855.88	869.71	351.19	178.56	298.30	+ 6	— 8
25	87.19	71.88	113.84	856.19	869.80	350.88	178.50	297.99	+ 8	— 3
26	—87.29	+72.19	+113.74	+856.50	—869.90	—350.57	—178.44	—297.67	+ 8	+ 2
27	87.40	72.50	113.64	856.81	870.00	350.27	178.39	297.36	+ 6	+ 7
28	87.51	72.80	113.53	857.11	870.11	349.97	178.35	297.04	+ 2	+10
29	87.62	73.10	113.41	857.41	870.22	349.67	178.31	296.73	— 3	+11
30	87.74	73.40	113.29	857.71	870.34	349.37	178.28	296.41	— 7	+ 9
Juli 1	—87.87	+73.70	+113.17	+858.01	—870.47	—349.07	—178.25	—296.10	—10	+ 6
2	88.00	74.00	113.04	858.31	870.60	348.77	178.23	295.78	—11	+ 2
3	—88.13	+74.30	+112.90	+858.61	—870.73	—348.47	—178.22	—295.47	—10	— 3
Mittl. Ort	—99".12	+79".29	+101".98	+863".59	—881".77	—343".41	—207".47	—307".47		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1931

Scheinbare Koordinaten für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10.56^m		BD +89° 3 Gr. 9.06^m		BD +89° 37 Gr. 10.06^m		CPD −89° 38 Gr. 9.5^m		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0.01″	
Juli 3	−88.″13	+74.″30	+112.″90	+858.″61	−870.″73	−348.″47	−178.″22	−295.″47	−10	− 3
4	88.27	74.60	112.76	858.91	870.87	348.17	178.21	295.15	− 8	− 7
5	88.42	74.90	112.61	859.21	871.02	347.87	178.21	294.84	− 4	− 9
6	88.57	75.19	112.46	859.50	871.17	347.58	178.21	294.53	0	−10
7	88.73	75.48	112.30	859.79	871.32	347.29	178.22	294.22	+ 4	− 9
8	−88.89	+75.77	+112.14	+860.08	−871.48	−347.00	−178.23	−293.91	+ 8	− 7
9	89.06	76.06	111.97	860.37	871.65	346.71	178.25	293.60	+11	− 3
10	89.23	76.35	111.80	860.66	871.82	346.42	178.27	293.29	+11	+ 1
11	89.41	76.63	111.62	860.94	872.00	346.14	178.30	292.98	+10	+ 6
12	89.59	76.91	111.43	861.22	872.18	345.86	178.34	292.67	+ 8	+ 9
13	−89.78	+77.19	+111.24	+861.50	−872.37	−345.58	−178.39	−292.36	+ 4	+11
14	89.97	77.47	111.05	861.78	872.56	345.30	178.44	292.06	− 1	+10
15	90.17	77.75	110.85	862.06	872.76	345.02	178.50	291.76	− 6	+ 7
16	90.37	78.02	110.64	862.33	872.96	344.75	178.56	291.46	− 9	+ 3
17	90.58	78.29	110.43	862.60	873.17	344.48	178.62	291.16	− 9	− 3
18	−90.79	+78.56	+110.22	+862.87	−873.38	−344.21	−178.69	−290.86	− 7	− 8
19	91.01	78.83	110.00	863.14	873.60	343.94	178.77	290.56	− 4	−11
20	91.23	79.09	109.78	863.40	873.82	343.68	178.85	290.27	+ 1	−11
21	91.46	79.35	109.55	863.66	874.04	343.42	178.94	289.98	+ 5	− 9
22	91.69	79.61	109.32	863.92	874.27	343.16	179.03	289.69	+ 7	− 5
23	−91.92	+79.87	+109.09	+864.17	−874.50	−342.90	−179.13	−289.40	+ 8	0
24	92.16	80.12	108.85	864.42	874.74	342.65	179.23	289.11	+ 6	+ 5
25	92.40	80.37	108.61	864.67	874.98	342.40	179.34	288.83	+ 3	+ 9
26	92.65	80.62	108.36	864.92	875.23	342.15	179.45	288.55	− 1	+11
27	92.90	80.86	108.11	865.16	875.48	341.91	179.57	288.27	− 6	+10
28	−93.16	+81.10	+107.85	+865.40	−875.74	−341.67	−179.70	−287.99	− 9	+ 7
29	93.42	81.34	107.59	865.64	876.00	341.43	179.83	287.72	−11	+ 4
30	93.69	81.58	107.32	865.88	876.27	341.20	179.96	287.45	−10	− 1
31	93.96	81.81	107.05	866.11	876.54	340.97	180.10	287.18	− 9	− 5
Aug. 1	94.23	82.04	106.77	866.34	876.81	340.74	180.25	286.91	− 6	− 8
2	−94.51	+82.26	+106.49	+866.56	−877.09	−340.52	−180.40	−286.65	− 1	−10
3	94.79	82.48	106.21	866.78	877.37	340.30	180.55	286.39	+ 3	−10
4	95.08	82.70	105.92	867.00	877.66	340.08	180.71	286.14	+ 7	− 8
5	95.37	82.91	105.63	867.21	877.94	339.87	180.88	285.89	+10	− 5
6	95.66	83.12	105.34	867.42	878.23	339.66	181.05	285.64	+12	− 1
7	−95.96	+83.33	+105.04	+867.63	−878.53	−339.45	−181.22	−285.39	+11	+ 4
8	96.26	83.53	104.74	867.83	878.83	339.25	181.40	285.15	+ 9	+ 8
9	−96.56	+83.73	+104.44	+868.03	−879.13	−339.05	−181.58	−284.91	+ 6	+10
Mittl. Ort	−99.″12	+79.″29	+101.″98	+863.″59	−881.″77	−343.″41	−207.″47	−307.″47		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1931

Scheinbare Koordinaten für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0.01″	
Aug. 9	− 96.56″	+83.73″	+104.44″	+868.03″	−879.13″	−339.05″	−181.58″	−284.91″	+ 6	+10
10	96.87	83.93	104.13	868.23	879.44	338.85	181.77	284.68	+ 1	+11
11	97.18	84.12	103.82	868.42	879.75	338.66	181.96	284.45	− 4	+ 8
12	97.49	84.31	103.51	868.61	880.06	338.47	182.16	284.22	− 7	+ 5
13	97.81	84.50	103.19	868.80	880.38	338.29	182.36	284.00	− 9	− 1
14	− 98.13	+84.68	+102.87	+868.98	−880.70	−338.11	−182.57	−283.78	− 8	− 6
15	98.45	84.86	102.54	869.16	881.02	337.93	182.78	283.57	− 5	−10
16	98.78	85.03	102.21	869.33	881.35	337.75	182.99	283.36	− 1	−11
17	99.11	85.20	101.88	869.50	881.68	337.58	183.21	283.15	+ 3	−10
18	99.44	85.37	101.55	869.67	882.01	337.41	183.43	282.95	+ 6	− 7
19	− 99.78	+85.53	+101.21	+869.83	−882.34	−337.25	−183.66	−282.75	+ 8	− 2
20	100.12	85.69	100.87	869.99	882.68	337.09	183.89	282.56	+ 7	+ 4
21	100.46	85.84	100.53	870.14	883.02	336.94	184.13	282.37	+ 4	+ 8
22	100.80	85.99	100.19	870.29	883.36	336.79	184.37	282.18	0	+11
23	101.15	86.13	99.84	870.43	883.71	336.65	184.61	282.00	− 5	+11
24	−101.50	+86.27	+ 99.49	+870.57	−884.06	−336.51	−184.85	−281.83	− 8	+ 9
25	101.85	86.41	99.14	870.71	884.41	336.37	185.10	281.66	−11	+ 5
26	102.20	86.54	98.78	870.84	884.77	336.24	185.35	281.49	−11	+ 1
27	102.56	86.67	98.42	870.97	885.13	336.11	185.61	281.33	−10	− 4
28	102.92	86.79	98.06	871.09	885.49	335.99	185.87	281.18	− 7	− 7
29	−103.28	+86.91	+ 97.70	+871.21	−885.85	−335.87	−186.13	−281.03	− 3	−10
30	103.64	87.03	97.34	871.33	886.21	335.75	186.39	280.88	+ 1	−10
31	104.01	87.14	96.98	871.44	886.57	335.64	186.66	280.74	+ 5	− 9
Sept. 1	104.38	87.25	96.61	871.55	886.94	335.53	186.93	280.61	+ 9	− 6
2	104.75	87.35	96.24	871.65	887.31	335.43	187.21	280.48	+11	− 2
3	−105.12	+87.45	+ 95.87	+871.75	−887.68	−335.33	−187.49	−280.36	+12	+ 2
4	105.50	87.54	95.49	871.84	888.05	335.24	187.77	280.24	+10	+ 7
5	105.88	87.63	95.11	871.93	888.43	335.15	188.05	280.12	+ 7	+10
6	106.26	87.71	94.73	872.01	888.81	335.07	188.33	280.02	+ 3	+11
7	106.64	87.79	94.35	872.09	889.19	334.99	188.61	279.92	− 1	+10
8	−107.02	+87.86	+ 93.97	+872.16	−889.57	−334.92	−188.90	−279.82	− 5	+ 6
9	107.40	87.93	93.59	872.23	889.95	334.85	189.19	279.73	− 7	+ 1
10	107.78	88.00	93.21	872.30	890.33	334.79	189.48	279.65	− 8	− 4
11	108.16	88.06	92.83	872.36	890.71	334.73	189.77	279.57	− 6	− 8
12	108.54	88.12	92.45	872.42	891.09	334.67	190.06	279.50	− 2	−11
13	−108.92	+88.17	+ 92.07	+872.47	−891.47	−334.62	−190.35	−279.43	+ 2	−11
14	109.31	88.22	91.68	872.51	891.86	334.57	190.65	279.37	+ 5	− 8
15	−109.70	+88.26	+ 91.29	+872.55	−892.25	−334.53	−190.95	−279.32	+ 7	− 4
Mittl. Ort	− 99.12″	+79.29″	+101.98″	+863.59″	−881.77″	−343.41″	−207.47″	−307.47″		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1931

Scheinbare Koordinaten für 12ʰ Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10ᵐ56		BD +89° 3 Gr. 9ᵐ06		BD +89° 37 Gr. 10ᵐ06		CPD −89° 38 Gr. 9ᵐ5		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0ʺ01	
Sept. 15	−109ʺ70	+88ʺ26	+ 91ʺ29	+872ʺ55	−892ʺ25	−334ʺ53	−190ʺ95	−279ʺ32	+ 7	− 4
16	110.09	88.30	90.90	872.59	892.64	334.49	191.25	279.27	+ 7	+ 2
17	110.48	88.33	90.51	872.62	893.03	334.46	191.55	279.23	+ 5	+ 7
18	110.87	88.36	90.12	872.65	893.42	334.43	191.85	279.19	+ 1	+10
19	111.26	88.38	89.73	872.67	893.81	334.41	192.15	279.16	− 3	+11
20	−111.65	+88.40	+ 89.34	+872.69	−894.20	−334.39	−192.45	−279.13	− 7	+10
21	112.04	88.41	88.95	872.71	894.59	334.38	192.76	279.11	−10	+ 6
22	112.43	88.42	88.56	872.72	894.98	334.37	193.07	279.10	−12	+ 2
23	112.83	88.42	88.17	872.73	895.38	334.36	193.37	279.09	−11	− 2
24	113.23	88.42	87.77	872.73	895.78	334.36	193.67	279.09	− 9	− 6
25	−113.62	+88.42	+ 87.37	+872.72	−896.17	−334.37	−193.97	−279.10	− 5	− 9
26	114.01	88.41	86.97	872.71	896.56	334.38	194.27	279.11	− 1	−10
27	114.40	88.39	86.58	872.70	896.95	334.39	194.57	279.13	+ 3	− 9
28	114.79	88.37	86.19	872.68	897.34	334.41	194.87	279.16	+ 7	− 7
29	115.18	88.35	85.80	872.65	897.73	334.44	195.18	279.19	+10	− 4
30	−115.57	+88.32	+ 85.41	+872.62	−898.12	−334.47	−195.49	−279.22	+11	+ 1
Okt. 1	115.96	88.28	85.02	872.59	898.51	334.50	195.80	279.26	+11	+ 5
2	116.35	88.24	84.63	872.55	898.90	334.54	196.11	279.31	+ 8	+ 9
3	116.74	88.20	84.24	872.51	899.29	334.58	196.41	279.36	+ 5	+11
4	117.13	88.15	83.85	872.46	899.68	334.63	196.71	279.42	+ 1	+10
5	−117.52	+88.10	+ 83.46	+872.40	−900.07	−334.68	−197.01	−279.49	− 3	+ 8
6	117.91	88.04	83.07	872.34	900.46	334.74	197.31	279.56	− 6	+ 4
7	118.30	87.98	82.68	872.28	900.85	334.80	197.61	279.64	− 7	− 2
8	118.69	87.91	82.29	872.21	901.24	334.87	197.91	279.73	− 6	− 7
9	119.08	87.83	81.90	872.13	901.63	334.95	198.20	279.82	− 3	−10
10	−119.47	+87.75	+ 81.51	+872.05	−902.02	−335.03	−198.49	−279.91	+ 1	−11
11	119.85	87.67	81.13	871.97	902.40	335.11	198.78	280.01	+ 5	−10
12	120.23	87.58	80.75	871.88	902.78	335.20	199.07	280.12	+ 8	− 6
13	120.61	87.49	80.37	871.79	903.16	335.29	199.36	280.23	+ 8	− 1
14	120.99	87.39	79.99	871.69	903.54	335.39	199.65	280.35	+ 7	+ 5
15	−121.37	+87.29	+ 79.61	+871.59	−903.92	−335.49	−199.93	−280.48	+ 3	+ 9
16	121.75	87.18	79.23	871.48	904.30	335.60	200.21	280.61	− 1	+11
17	122.13	87.07	78.85	871.37	904.68	335.71	200.49	280.75	− 6	+10
18	122.50	86.96	78.48	871.25	905.05	335.83	200.76	280.89	−10	+ 8
19	122.87	86.84	78.11	871.13	905.42	335.96	201.03	281.04	−12	+ 4
20	−123.24	+86.71	+ 77.74	+871.00	−905.79	−336.09	−201.30	−281.19	−12	− 1
21	123.61	86.58	77.37	870.87	906.16	336.22	201.57	281.35	−10	− 5
22	−123.97	+86.44	+ 77.00	+870.74	−906.52	−336.36	−201.83	−281.52	− 7	− 8
Mittl. Ort	− 99ʺ12	+79ʺ29	+101ʺ98	+863ʺ59	−881ʺ77	−343ʺ41	−207ʺ47	−307ʺ47		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Polnahe Sterne 1931

Scheinbare Koordinaten für 12^h Sternzeit Greenwich

Tag	BD +89° 1 Gr. $10^m.56$		BD +89° 3 Gr. $9^m.06$		BD +89° 37 Gr. $10^m.06$		CPD −89° 38 Gr. $9^m.5$		Kurzperiod. Mondgl.*)	
1931	x	y	x	y	x	y	x	y	in 0″.01	
Okt. 22	−123″.97	+86″.44	+ 77″.00	+870″.74	−906″.52	−336″.36	−201″.83	−281″.52	− 7	− 8
23	124.33	86.30	76.64	870.60	906.88	336.50	202.09	281.69	− 3	−10
24	124.69	86.15	76.28	870.45	907.24	336.65	202.34	281.87	+ 1	−10
25	125.05	86.00	75.92	870.30	907.60	336.80	202.59	282.05	+ 5	− 8
26	125.41	85.85	75.56	870.15	907.96	336.96	202.84	282.24	+ 9	− 5
27	−125.76	+85.69	+ 75.21	+869.99	−908.31	−337.12	−203.09	−282.43	+10	− 1
28	126.11	85.53	74.86	869.83	908.66	337.28	203.33	282.62	+10	+ 3
29	126.46	85.36	74.51	869.66	909.01	337.45	203.57	282.82	+ 9	+ 7
30	126.81	85.19	74.16	869.49	909.36	337.62	203.80	283.03	+ 6	+10
31	127.15	85.01	73.82	869.32	909.70	337.80	204.03	283.24	+ 2	+11
Nov. 1	−127.49	+84.83	+ 73.48	+869.14	−910.04	−337.98	−204.26	−283.46	− 2	+ 9
2	127.83	84.64	73.14	868.96	910.38	338.17	204.48	283.68	− 6	+ 6
3	128.16	84.45	72.81	868.77	910.71	338.36	204.70	283.91	− 7	+ 1
4	128.49	84.26	72.48	868.58	911.04	338.55	204.92	284.14	− 7	− 5
5	128.82	84.06	72.15	868.38	911.37	338.75	205.13	284.38	− 4	− 9
6	−129.14	+83.86	+ 71.83	+868.18	−911.69	−338.95	−205.33	−284.62	0	−11
7	129.46	83.65	71.51	867.97	912.01	339.16	205.53	284.86	+ 4	−11
8	129.78	83.44	71.19	867.76	912.33	339.37	205.72	285.11	+ 8	− 8
9	130.09	83.22	70.88	867.54	912.64	339.59	205.91	285.36	+ 9	− 3
10	130.40	83.00	70.57	867.32	912.95	339.81	206.09	285.62	+ 8	+ 3
11	−130.71	+82.78	+ 70.26	+867.10	−913.25	−340.03	−206.27	−285.88	+ 6	+ 7
12	131.01	82.55	69.96	866.87	913.55	340.26	206.45	286.14	+ 1	+10
13	131.31	82.32	69.66	866.64	913.85	340.49	206.62	286.41	− 4	+11
14	131.60	82.08	69.37	866.40	914.14	340.73	206.78	286.68	− 8	+ 9
15	131.89	81.84	69.08	866.16	914.43	340.97	206.94	286.96	−11	+ 6
16	−132.17	+81.60	+ 68.79	+865.92	−914.72	−341.21	−207.09	−287.24	−12	+ 1
17	132.45	81.36	68.51	865.68	915.00	341.46	207.23	287.52	−11	− 3
18	132.73	81.11	68.23	865.43	915.28	341.71	207.37	287.81	− 9	− 7
19	133.00	80.86	67.96	865.18	915.55	341.96	207.51	288.10	− 5	−10
20	133.27	80.60	67.69	864.92	915.82	342.22	207.64	288.39	0	−10
21	−133.53	+80.34	+ 67.43	+864.66	−916.08	−342.48	−207.76	−288.69	+ 4	− 9
22	133.79	80.07	67.17	864.39	916.34	342.74	207.88	288.99	+ 7	− 7
23	134.04	79.80	66.92	864.12	916.59	343.01	207.99	289.29	+10	− 3
24	134.29	79.53	66.67	863.85	916.84	343.28	208.09	289.60	+10	+ 2
25	134.53	79.26	66.43	863.58	917.08	343.56	208.19	289.91	+ 9	+ 6
26	−134.77	+78.98	+ 66.19	+863.30	−917.32	−343.84	−208.28	−290.22	+ 7	+ 9
27	135.00	78.70	65.96	863.02	917.55	344.12	208.37	290.53	+ 3	+11
28	−135.23	+78.42	+ 65.73	+862.74	−917.78	−344.40	−208.45	−290.84	− 1	+10
Mittl. Ort	− 99″.12	+79″.29	+101″.98	+863″.59	−881″.77	−343″.41	−207″.47	−307″.47		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Scheinbare Koordinaten für 12h Sternzeit Greenwich

Tag	BD +89° 1 Gr. 10.56m		BD +89° 3 Gr. 9.06m		BD +89° 37 Gr. 10.06m		CPD −89° 38 Gr. 9.5m		Kurzperiod. Mondgl.*) in 0.01"	
1931	x	y	x	y	x	y	x	y		
Nov. 28	−135.23"	+78.42"	+ 65.73"	+862.74"	−917.78"	−344.40"	−208.45"	−290.84"	− 1	+10
29	135.45	78.13	65.51	862.45	918.00	344.69	208.53	291.15	− 5	+ 7
30	135.67	77.84	65.29	862.16	918.22	344.98	208.60	291.47	− 7	+ 3
Dez. 1	135.88	77.55	65.08	861.87	918.43	345.28	208.66	291.79	− 8	− 3
2	136.09	77.25	64.87	861.57	918.64	345.58	208.72	292.11	− 6	− 8
3	−136.29	+76.95	+ 64.67	+861.27	−918.84	−345.88	−208.77	−292.43	− 2	−11
4	136.48	76.65	64.47	860.97	919.03	346.18	208.81	292.76	+ 2	−11
5	136.67	76.35	64.28	860.67	919.22	346.49	208.85	293.09	+ 6	− 9
6	136.86	76.04	64.10	860.37	919.41	346.80	208.88	293.42	+ 9	− 5
7	137.04	75.73	63.92	860.06	919.59	347.11	208.90	293.75	+ 9	0
8	−137.21	+75.42	+ 63.74	+859.75	−919.76	−347.42	−208.92	−294.08	+ 8	+ 6
9	137.38	75.11	63.58	859.44	919.93	347.73	208.93	294.41	+ 4	+10
10	137.54	74.80	63.42	859.13	920.09	348.04	208.93	294.74	− 1	+11
11	137.69	74.48	63.26	858.81	920.24	348.36	208.93	295.07	− 6	+10
12	137.84	74.16	63.11	858.49	920.39	348.68	208.92	295.40	−10	+ 7
13	−137.98	+73.84	+ 62.96	+858.17	−920.54	−349.00	−208.91	−295.74	−12	+ 3
14	138.12	73.52	62.82	857.85	920.68	349.32	208.89	296.07	−12	− 2
15	138.25	73.20	62.69	857.53	920.81	349.65	208.86	296.41	−10	− 6
16	138.37	72.87	62.57	857.21	920.93	349.98	208.82	296.74	− 6	− 9
17	138.49	72.54	62.45	856.88	921.05	350.31	208.78	297.08	− 2	−10
18	−138.61	+72.21	+ 62.34	+856.55	−921.16	−350.64	−208.73	−297.41	+ 2	−10
19	138.71	71.88	62.23	856.22	921.27	350.97	208.68	297.74	+ 6	− 8
20	138.81	71.55	62.13	855.89	921.37	351.30	208.62	298.08	+ 9	− 4
21	138.91	71.22	62.04	855.56	921.46	351.63	208.55	298.41	+10	0
22	139.00	70.89	61.95	855.23	921.55	351.96	208.48	298.74	+10	+ 4
23	−139.08	+70.56	+ 61.87	+854.90	−921.63	−352.29	−208.40	−299.07	+ 8	+ 8
24	139.15	70.23	61.80	854.57	921.70	352.62	208.31	299.40	+ 4	+10
25	139.22	69.90	61.73	854.24	921.77	352.95	208.22	299.73	0	+10
26	139.28	69.57	61.67	853.91	921.83	353.28	208.12	300.06	− 4	+ 8
27	139.33	69.23	61.61	853.58	921.88	353.62	208.02	300.39	− 7	+ 5
28	−139.38	+68.89	+ 61.56	+853.24	−921.93	−353.96	−207.91	−300.72	− 8	− 1
29	139.42	68.55	61.52	852.90	921.97	354.30	207.79	301.05	− 7	− 6
30	139.45	68.21	61.49	852.56	922.00	354.64	207.66	301.38	− 4	−10
31	139.48	67.87	61.46	852.22	922.03	354.98	207.53	301.70	0	−11
32	−139.50	+67.53	+ 61.44	+851.88	−922.05	−355.32	−207.39	−302.02	+ 5	−10
Mittl. Ort	− 99.12"	+79.29"	+101.98"	+863.59"	−881.77"	−343.41"	−207.47"	−307.47"		

*) Die Vorzeichen gelten für die drei nördlichen Sterne, für den südlichen sind sie umzukehren.

Formeln

zur Reduktion auf den scheinbaren Ort

$$A = t - (0.34215 + 0.00031\, T) \sin \Omega + 0.00415 \sin 2\Omega - 0.02526 \sin 2 L_\odot$$
$$+ 0.00251 \sin M_\odot - 0.00099 \sin (2 L_\odot + M_\odot) + 0.00042 \sin (2 L_\odot - M_\odot)$$
$$+ 0.00025 \sin (2 L_\odot - \Omega)$$

$$A' = - 0.00405 \sin 2 L_☾ + 0.00135 \sin M_☾ - 0.00068 \sin (2 L_☾ - \Omega)$$
$$- 0.00052 \sin (2 L_☾ + M_☾) + 0.00030 \sin (2 L_☾ - 2 L_\odot - M_☾)$$
$$+ 0.00023 \sin (2 L_☾ - M_☾) + 0.00012 \sin (2 L_☾ - 2 L_\odot)$$

$$B = - (9''.210 + 0''.001\, T) \cos \Omega + 0''.090 \cos 2\Omega - 0''.551 \cos 2 L_\odot$$
$$- 0''.022 \cos (2 L_\odot + M_\odot) + 0''.009 \cos (2 L_\odot - M_\odot)$$
$$+ 0''.007 \cos (2 L_\odot - \Omega)$$

$$B' = - 0''.089 \cos 2 L_☾ - 0''.018 \cos (2 L_☾ - \Omega) - 0''.011 \cos (2 L_☾ + M_☾)$$
$$+ 0''.005 \cos (2 L_☾ - M_☾)$$

$$C = - 20''.47 \cos \odot \cos \varepsilon$$
$$D = - 20''.47 \sin \odot$$
$$E = - (0^s.0029 - 0^s.0004\, T) \sin \Omega$$

T Zeit seit 1900.0 in Einheiten von 100 tropischen Jahren

t Zeit seit Beginn des annus fictus in Bruchteilen des tropischen Jahres

$t = 0$ für 1931 Januar $1^d.3216$

$a = m + {}^1/_{15}\, n \sin \alpha \operatorname{tg} \delta$	$a' = n \cos \alpha$
$b = {}^1/_{15} \cos \alpha \operatorname{tg} \delta$	$b' = - \sin \alpha$
$c = {}^1/_{15} \cos \alpha \sec \delta$	$c' = \operatorname{tg} \varepsilon \cos \delta - \sin \alpha \sin \delta$
$d = {}^1/_{15} \sin \alpha \sec \delta$	$d' = \cos \alpha \sin \delta$

Für 1931.0 gilt: $m = +3^s.0729$, $n = +20''.044$, $\varepsilon = 23^\circ\, 26'\, 53''.74$

$$\alpha_{app.} = \alpha_{1931.0} + t\,\mu_\alpha + Aa + Bb + Cc + Dd + E + [A'a + B'b]$$
$$\delta_{app.} = \delta_{1931.0} + t\,\mu_\delta + Aa' + Bb' + Cc' + Dd' \quad + [A'a' + B'b']$$

μ_α, μ_δ jährliche Eigenbewegung in Rektaszension, bez. Deklination

Setzt man

$f = mA + E$	$f' = mA'$	$i = C \operatorname{tg} \varepsilon$
$g \sin G = B$	$g' \sin G' = B'$	$h \sin H = C$
$g \cos G = n\,A$	$g' \cos G' = nA'$	$h \cos H = D.$

so wird:

$$\alpha_{app.} = \alpha_{1931.0} + t\,\mu_\alpha + f + {}^1/_{15}\, g \sin (G + \alpha) \operatorname{tg} \delta + {}^1/_{15}\, h \sin (H + \alpha) \sec \delta$$
$$+ [f' + {}^1/_{15}\, g' \sin (G' + \alpha) \operatorname{tg} \delta]$$

$$\delta_{app.} = \delta_{1931.0} + t\,\mu_\delta + g \cos (G + \alpha) + h \cos (H + \alpha) \sin \delta + i \cos \delta$$
$$+ [g' \cos (G' + \alpha)]$$

Reduktionsgrößen 1931

für 12^h Sternzeit Greenwich

Welt-Zeit	t	log A	log B	log C	log D	E
1931	a					s
Jan. 1.2	−0.0003	9.01611$_n$	0.90757$_n$	0.50691$_n$	1.30466	−0.0009
11.2	+0.0270	8.81544$_n$	0.91429$_n$	0.80801$_n$	1.28409	8
21.2	0.0543	8.46240$_n$	0.92345$_n$	0.97483$_n$	1.24790	8
31.1	0.0816	7.66276	0.93420$_n$	1.08450$_n$	1.19340	8
Febr. 10.1	0.1089	8.54518	0.94507$_n$	1.16056$_n$	1.11541	8
20.1	0.1362	8.79588	0.95506$_n$	1.21333$_n$	1.00359	−0.0007
März 2.1	0.1636	8.94067	0.96313$_n$	1.24807$_n$	0.83423	7
12.0	0.1909	9.04143	0.96848$_n$	1.26769$_n$	0.52892	7
22.0	0.2182	9.12008	0.97090$_n$	1.27367$_n$	9.17898$_n$	7
April 1.0	0.2455	9.18673	0.97021$_n$	1.26663$_n$	0.56312$_n$	7
10.9	0.2728	9.24709	0.96670$_n$	1.24638$_n$	0.84739$_n$	−0.0006
20.9	0.3001	9.30410	0.96099$_n$	1.21179$_n$	1.00826$_n$	6
30.9	0.3274	9.35919	0.95371$_n$	1.16065$_n$	1.11528$_n$	6
Mai 10.9	0.3547	9.41266	0.94571$_n$	1.08867$_n$	1.19039$_n$	6
20.8	0.3820	9.46427	0.93822$_n$	0.98758$_n$	1.24343$_n$	6
30.8	0.4093	9.51355	0.93186$_n$	0.83942$_n$	1.27953$_n$	−0.0005
Juni 9.8	0.4366	9.55992	0.92778$_n$	0.59295$_n$	1.30146$_n$	5
19.8	0.4639	9.60296	0.92629$_n$	9.91593$_n$	1.31071$_n$	5
29.7	0.4912	9.64229	0.92778$_n$	0.35946	1.30788$_n$	5
Juli 9.7	0.5185	9.67775	0.93207$_n$	0.72722	1.29285$_n$	5
19.7	0.5458	9.70931	0.93882$_n$	0.91577	1.26470$_n$	−0.0004
29.6	0.5731	9.73709	0.94709$_n$	1.03810	1.22160$_n$	4
Aug. 8.6	0.6004	9.76132	0.95612$_n$	1.12385	1.15990$_n$	4
18.6	0.6277	9.78235	0.96501$_n$	1.18526	1.07332$_n$	4
28.6	0.6550	9.80067	0.97290$_n$	1.22840	0.94856$_n$	4
Sept. 7.5	0.6823	9.81681	0.97882$_n$	1.25638	0.75305$_n$	−0.0003
17.5	0.7096	9.83143	0.98241$_n$	1.27103	0.35507$_n$	3
27.5	0.7369	9.84518	0.98313$_n$	1.27291	0.08493	3
Okt. 7.5	0.7642	9.85872	0.98109$_n$	1.26202	0.67034	3
17.4	0.7916	9.87263	0.97635$_n$	1.23742	0.90461	2
27.4	0.8189	9.88733	0.96937$_n$	1.19720	1.04743	−0.0002
Nov. 6.4	0.8462	9.90306	0.96090$_n$	1.13783	1.14489	1
16.3	0.8735	9.91989	0.95197$_n$	1.05289	1.21362	1
26.3	0.9008	9.93760	0.94364$_n$	0.92921	1.26138	1
Dez. 6.3	0.9281	9.95586	0.93712$_n$	0.73440	1.29219	−0.0001
16.3	0.9554	9.97421	0.93334$_n$	0.33766	1.30820	0
26.2	0.9827	9.99215	0.93288$_n$	0.05994$_n$	1.31031	0
36.2	1.0100	0.00923	0.93576$_n$	0.64709$_n$	1.29861	0

Tag	0^h Welt-Zeit								
	St.-Zt. Grw.	*t*	*f*	log *g*	*G*	log *h*	*H*	log *i*	*i*
1931									
	h	s	s		h m		h m		"
Jan. 0	6.6	−0.0036	−0.335	0.9223	16 59.5	1.3103	23 28.4	0.0860_n	−1.219
1	6.6	−0.0009	0.323	0.9217	17 1.7	1.3101	23 24.6	0.1342_n	1.362
2	6.7	+0.0019	0.311	0.9211	17 3.9	1.3099	23 20.9	0.1775_n	1.505
3	6.8	0.0046	0.299	0.9206	17 6.1	1.3097	23 17.1	0.2167_n	1.647
4	6.8	0.0073	0.287	0.9202	17 8.3	1.3095	23 13.4	0.2524_n	1.788
5	6.9	0.0101	0.275	0.9200	17 10.4	1.3092	23 9.6	0.2853_n	1.929
6	7.0	0.0128	−0.263	0.9198	17 12.6	1.3089	23 5.8	0.3158_n	−2.069
7	7.0	0.0155	0.251	0.9196	17 14.7	1.3086	23 2.0	0.3442_n	2.209
8	7.1	0.0183	0.239	0.9195	17 16.9	1.3082	22 58.2	0.3707_n	2.348
9	7.2	0.0210	0.227	0.9195	17 19.0	1.3079	22 54.4	0.3955_n	2.486
10	7.2	0.0238	0.216	0.9195	17 21.2	1.3075	22 50.6	0.4190_n	2.624
11	7.3	0.0265	0.204	0.9196	17 23.3	1.3071	22 46.8	0.4411_n	2.761
12	7.4	0.0292	−0.193	0.9198	17 25.4	1.3067	22 43.0	0.4619_n	−2.897
13	7.4	0.0320	0.181	0.9201	17 27.5	1.3063	22 39.2	0.4817_n	3.032
14	7.5	0.0347	0.170	0.9204	17 29.6	1.3059	22 35.4	0.5005_n	3.166
15	7.6	0.0375	0.158	0.9208	17 31.7	1.3054	22 31.5	0.5183_n	3.298
16	7.6	0.0402	0.147	0.9212	17 33.7	1.3049	22 27.7	0.5353_n	3.430
17	7.7	0.0429	0.136	0.9217	17 35.8	1.3044	22 23.8	0.5516_n	3.561
18	7.8	0.0457	−0.125	0.9223	17 37.8	1.3039	22 20.0	0.5671_n	−3.691
19	7.8	0.0484	0.114	0.9230	17 39.8	1.3034	22 16.1	0.5819_n	3.819
20	7.9	0.0511	0.103	0.9237	17 41.8	1.3029	22 12.3	0.5962_n	3.946
21	8.0	0.0539	0.092	0.9244	17 43.8	1.3024	22 8.4	0.6098_n	4.072
22	8.0	0.0566	0.081	0.9251	17 45.8	1.3018	22 4.5	0.6229_n	4.197
23	8.1	0.0594	0.070	0.9259	17 47.7	1.3012	22 0.6	0.6355_n	4.320
24	8.2	0.0621	−0.060	0.9268	17 49.6	1.3006	21 56.7	0.6476_n	−4.442
25	8.2	0.0648	0.049	0.9278	17 51.5	1.3000	21 52.8	0.6593_n	4.563
26	8.3	0.0676	0.039	0.9287	17 53.3	1.2994	21 48.8	0.6704_n	4.682
27	8.4	0.0703	0.029	0.9297	17 55.2	1.2988	21 44.9	0.6812_n	4.799
28	8.4	0.0730	0.018	0.9307	17 57.0	1.2982	21 40.9	0.6915_n	4.915
29	8.5	0.0758	−0.008	0.9318	17 58.7	1.2976	21 37.0	0.7015_n	5.029
30	8.6	0.0785	+0.002	0.9329	18 0.5	1.2970	21 33.0	0.7111_n	−5.142
31	8.6	0.0813	0.012	0.9340	18 2.2	1.2963	21 29.0	0.7204_n	5.253
Febr. 1	8.7	0.0840	0.022	0.9352	18 3.9	1.2957	21 25.0	0.7294_n	5.363
2	8.7	0.0867	0.031	0.9364	18 5.6	1.2950	21 21.0	0.7381_n	5.471
3	8.8	0.0895	0.041	0.9376	18 7.2	1.2944	21 17.0	0.7464_n	5.577
4	8.9	0.0922	0.051	0.9388	18 8.9	1.2937	21 13.0	0.7544_n	5.681
5	8.9	0.0949	+0.060	0.9400	18 10.5	1.2930	21 8.9	0.7622_n	−5.783
6	9.0	0.0977	0.069	0.9413	18 12.0	1.2924	21 4.9	0.7696_n	5.883
7	9.1	0.1004	0.079	0.9425	18 13.6	1.2917	21 0.8	0.7768_n	5.982
8	9.1	0.1032	0.088	0.9438	18 15.1	1.2911	20 56.7	0.7838_n	6.079
9	9.2	0.1059	0.097	0.9451	18 16.6	1.2904	20 52.7	0.7906_n	6.174
10	9.3	0.1086	+0.106	0.9464	18 18.1	1.2897	20 48.6	0.7971_n	−6.267

Tag	f'	g'	G'	Allgemeine Präzession seit 1931.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
	0ʰ Welt-Zeit										
1931	in 0ˢ.001	in 0″.01				in 0″.01	23° 27′		in 0″.01	in 0.001	
Jan. 0	−19	+12	12ʰ.4	−0″.18	−5″.29	−30	1″.83	+8″.07	+ 1	36	89
1	−18	12	10.9	−0.04	5.23	−30	1.78	8.08	− 3	36	89
2	−14	12	9.3	+0.09	5.17	−23	1.75	8.09	− 8	36	89
3	− 8	12	7.8	0.23	5.11	−13	1.73	8.10	−10	36	89
4	0	11	6.1	0.37	5.05	0	1.73	8.11	−11	36	89
5	+ 7	10	4.1	0.51	4.99	+12	1.77	8.12	− 9	36	89
6	+13	+10	1.9	+0.64	−4.94	+21	1.82	+8.13	− 5	36	89
7	+15	10	23.7	0.78	4.88	+25	1.88	8.15	+ 1	36	89
8	+14	11	21.8	0.92	4.82	+23	1.95	8.16	+ 6	36	88
9	+ 9	11	20.2	1.06	4.77	+15	2.00	8.17	+10	36	88
10	+ 3	11	18.7	1.19	4.72	+ 5	2.03	8.19	+11	36	88
11	− 4	10	17.1	1.33	4.66	− 6	2.03	8.20	+10	36	88
12	− 9	+ 9	15.3	+1.47	−4.61	−14	2.01	+8.22	+ 6	36	88
13	−11	7	12.9	1.61	4.56	−18	1.97	8.23	+ 2	36	88
14	−10	7	10.2	1.74	4.51	−16	1.94	8.25	− 3	36	88
15	− 6	9	7.9	1.88	4.47	−10	1.91	8.27	− 7	36	88
16	− 1	10	6.2	2.02	4.42	− 1	1.90	8.29	−10	36	88
17	+ 5	11	4.8	2.16	4.37	+ 8	1.92	8.31	−10	36	88
18	+10	+11	3.5	+2.30	−4.33	+17	1.95	+8.32	− 9	36	88
19	+14	10	2.1	2.43	4.29	+22	2.00	8.34	− 5	36	88
20	+15	10	0.5	2.57	4.24	+24	2.06	8.36	− 1	37	87
21	+14	9	22.8	2.71	4.20	+22	2.12	8.38	+ 3	37	87
22	+10	9	21.0	2.85	4.17	+16	2.17	8.40	+ 6	37	87
23	+ 4	9	19.1	2.98	4.13	+ 7	2.22	8.42	+ 9	37	87
24	− 2	+10	17.4	+3.12	−4.09	− 4	2.25	+8.44	+10	37	87
25	− 9	11	15.9	3.26	4.06	−15	2.26	8.46	+ 9	37	87
26	−15	12	14.3	3.40	4.02	−24	2.26	8.48	+ 7	37	87
27	−18	12	12.9	3.53	3.99	−30	2.24	8.50	+ 3	37	87
28	−19	13	11.4	3.67	3.96	−31	2.21	8.53	− 2	37	86
29	−17	13	9.9	3.81	3.94	−27	2.18	8.55	− 7	37	86
30	−11	+12	8.4	+3.95	−3.91	−18	2.17	+8.57	−10	37	86
31	− 4	11	6.9	4.08	3.88	− 6	2.18	8.59	−11	37	86
Febr. 1	+ 4	10	5.1	4.22	3.86	+ 6	2.21	8.61	−10	38	86
2	+10	9	2.9	4.36	3.84	+17	2.27	8.63	− 6	38	86
3	+14	9	0.5	4.50	3.82	+23	2.34	8.66	− 1	38	86
4	+14	10	22.3	4.63	3.80	+23	2.42	8.68	+ 4	38	86
5	+11	+11	20.6	+4.77	−3.78	+18	2.48	+8.70	+ 9	38	86
6	+ 5	11	19.1	4.91	3.77	+ 8	2.52	8.72	+11	38	85
7	− 1	11	17.7	5.05	3.75	− 2	2.54	8.74	+11	38	85
8	− 7	9	16.0	5.19	3.74	−11	2.53	8.77	+ 8	38	85
9	−10	7	13.9	5.32	3.73	−16	2.51	8.79	+ 3	38	85
10	−10	+ 7	11.0	+5.46	−3.72	−16	2.48	+8.81	− 2	38	85

Tag	0h Welt-Zeit								
	St.-Zt. Grw.	t	f	log g	G	log h	H	log i	i
1931	h	s	s		h m		h m		″
Febr. 10	9.3	0.1086	+0.106	0.9464	18 18.1	1.2897	20 48.6	0.7971_n	−6.267
11	9.3	0.1114	0.115	0.9477	18 19.5	1.2891	20 44.5	0.8033_n	6.358
12	9.4	0.1141	0.123	0.9490	18 21.0	1.2884	20 40.4	0.8094_n	6.447
13	9.5	0.1169	0.132	0.9502	18 22.4	1.2878	20 36.2	0.8152_n	6.534
14	9.5	0.1196	0.141	0.9515	18 23.8	1.2871	20 32.1	0.8208_n	6.619
15	9.6	0.1223	0.149	0.9528	18 25.1	1.2865	20 27.9	0.8262_n	6.702
16	9.7	0.1251	+0.158	0.9540	18 26.4	1.2859	20 23.8	0.8314_n	−6.782
17	9.7	0.1278	0.166	0.9553	18 27.7	1.2852	20 19.6	0.8363_n	6.860
18	9.8	0.1305	0.174	0.9566	18 29.0	1.2846	20 15.5	0.8411_n	6.936
19	9.9	0.1333	0.182	0.9578	18 30.3	1.2840	20 11.3	0.8457_n	7.010
20	9.9	0.1360	0.190	0.9591	18 31.5	1.2834	20 7.1	0.8502_n	7.082
21	10.0	0.1388	0.198	0.9603	18 32.8	1.2828	20 2.9	0.8544_n	7.152
22	10.1	0.1415	+0.206	0.9615	18 34.0	1.2823	19 58.6	0.8585_n	−7.220
23	10.1	0.1442	0.214	0.9627	18 35.2	1.2817	19 54.4	0.8624_n	7.285
24	10.2	0.1470	0.222	0.9639	18 36.3	1.2812	19 50.2	0.8662_n	7.348
25	10.3	0.1497	0.229	0.9651	18 37.5	1.2806	19 45.9	0.8698_n	7.409
26	10.3	0.1524	0.237	0.9662	18 38.6	1.2801	19 41.7	0.8731_n	7.467
27	10.4	0.1552	0.244	0.9674	18 39.7	1.2796	19 37.4	0.8763_n	7.522
28	10.5	0.1579	+0.252	0.9685	18 40.8	1.2791	19 33.2	0.8794_n	−7.576
März 1	10.5	0.1607	0.259	0.9696	18 41.9	1.2786	19 28.9	0.8824_n	7.628
2	10.6	0.1634	0.267	0.9707	18 43.0	1.2782	19 24.6	0.8852_n	7.677
3	10.7	0.1661	0.274	0.9718	18 44.1	1.2778	19 20.3	0.8878_n	7.723
4	10.7	0.1689	0.281	0.9729	18 45.1	1.2774	19 16.0	0.8903_n	7.767
5	10.8	0.1716	0.288	0.9739	18 46.2	1.2770	19 11.7	0.8926_n	7.809
6	10.9	0.1743	+0.295	0.9749	18 47.2	1.2766	19 7.4	0.8948_n	−7.848
7	10.9	0.1771	0.302	0.9759	18 48.3	1.2762	19 3.1	0.8968_n	7.885
8	11.0	0.1798	0.309	0.9768	18 49.3	1.2759	18 58.8	0.8987_n	7.919
9	11.0	0.1826	0.316	0.9777	18 50.3	1.2756	18 54.5	0.9004_n	7.951
10	11.1	0.1853	0.323	0.9786	18 51.3	1.2753	18 50.2	0.9021_n	7.981
11	11.2	0.1880	0.330	0.9795	18 52.3	1.2750	18 45.8	0.9035_n	8.008
12	11.2	0.1908	+0.337	0.9803	18 53.3	1.2748	18 41.5	0.9049_n	−8.033
13	11.3	0.1935	0.344	0.9811	18 54.3	1.2746	18 37.2	0.9061_n	8.055
14	11.4	0.1962	0.350	0.9819	18 55.3	1.2744	18 32.8	0.9071_n	8.075
15	11.4	0.1990	0.357	0.9827	18 56.3	1.2742	18 28.5	0.9081_n	8.093
16	11.5	0.2017	0.364	0.9835	18 57.3	1.2741	18 24.2	0.9089_n	8.108
17	11.6	0.2045	0.371	0.9842	18 58.2	1.2740	18 19.8	0.9096_n	8.120
18	11.6	0.2072	+0.377	0.9849	18 59.2	1.2739	18 15.5	0.9101_n	−8.130
19	11.7	0.2099	0.384	0.9856	19 0.2	1.2738	18 11.2	0.9105_n	8.138
20	11.8	0.2127	0.391	0.9863	19 1.2	1.2737	18 6.8	0.9108_n	8.143
21	11.8	0.2154	0.398	0.9869	19 2.1	1.2737	18 2.5	0.9109_n	8.145
22	11.9	0.2182	0.404	0.9875	19 3.1	1.2737	17 58.2	0.9109_n	8.145
23	12.0	0.2209	+0.411	0.9881	19 4.1	1.2737	17 53.8	0.9108_n	−8.143

Tag	0h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1931.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1931	in 0.001 s	in 0.01"				in 0.01"	23° 27'		in 0.01"	in 0.001	
Febr. 10	−10	+ 7	11.0 h	+ 5.46"	−3.72"	−16	2.48"	+8.81"	− 2	38	85
11	− 7	8	8.3	5.60	3.71	−11	2.45	8.83	− 6	39	85
12	− 2	10	6.5	5.74	3.71	− 3	2.44	8.85	− 9	39	85
13	+ 4	11	5.0	5.87	3.70	+ 7	2.45	8.87	−11	39	84
14	+10	11	3.7	6.01	3.70	+16	2.48	8.89	− 9	39	84
15	+14	11	2.4	6.15	3.70	+22	2.53	8.92	− 7	39	84
16	+15	+10	1.0	+ 6.29	−3.70	+25	2.59	+8.94	− 3	39	84
17	+15	10	23.3	6.42	3.70	+24	2.65	8.96	+ 2	39	84
18	+12	9	21.5	6.56	3.70	+19	2.71	8.98	+ 6	39	84
19	+ 6	9	19.7	6.70	3.71	+10	2.76	9.00	+ 8	40	84
20	0	10	18.0	6.84	3.71	0	2.79	9.01	+10	40	84
21	− 7	11	16.4	6.97	3.72	−11	2.80	9.03	+10	40	84
22	−13	+11	14.9	+ 7.11	−3.73	−21	2.80	+9.05	+ 8	40	83
23	−17	12	13.3	7.25	3.74	−28	2.78	9.07	+ 4	40	83
24	−19	12	11.8	7.39	3.75	−31	2.75	9.09	0	40	83
25	−18	13	10.4	7.52	3.76	−29	2.72	9.10	− 5	40	83
26	−14	13	9.0	7.66	3.78	−22	2.70	9.12	− 9	40	83
27	− 7	12	7.5	7.80	3.79	−12	2.69	9.14	−11	40	83
28	+ 1	+11	5.9	+ 7.94	−3.81	+ 1	2.71	+9.15	−11	41	83
März 1	+ 7	9	3.9	8.07	3.83	+12	2.75	9.17	− 8	41	83
2	+12	8	1.4	8.21	3.84	+20	2.81	9.18	− 3	41	83
3	+13	9	22.9	8.35	3.86	+22	2.88	9.20	+ 2	41	82
4	+11	10	21.0	8.49	3.88	+18	2.94	9.21	+ 7	41	82
5	+ 6	11	19.4	8.63	3.90	+10	2.99	9.22	+10	41	82
6	0	+11	18.0	+ 8.76	−3.92	0	3.00	+9.24	+11	41	82
7	− 6	10	16.5	8.90	3.95	− 9	2.99	9.25	+ 9	41	82
8	− 9	8	14.6	9.04	3.97	−15	2.96	9.26	+ 5	41	82
9	−10	7	12.0	9.18	3.99	−17	2.92	9.27	0	41	82
10	− 8	7	9.0	9.31	4.02	−13	2.88	9.28	− 5	41	82
11	− 3	9	6.9	9.45	4.04	− 5	2.85	9.29	− 9	42	82
12	+ 3	+11	5.3	+ 9.59	−4.07	+ 5	2.84	+9.30	−10	42	82
13	+ 9	11	4.0	9.73	4.10	+14	2.85	9.31	−10	42	82
14	+13	12	2.7	9.86	4.12	+22	2.88	9.31	− 8	42	82
15	+16	11	1.4	10.00	4.15	+26	2.92	9.32	− 4	42	82
16	+16	10	23.9	10.14	4.18	+26	2.97	9.33	0	42	82
17	+13	10	22.2	10.28	4.21	+22	3.02	9.33	+ 4	42	82
18	+ 9	+10	20.4	+10.41	−4.23	+14	3.06	+9.34	+ 8	42	82
19	+ 3	10	18.7	10.55	4.26	+ 5	3.08	9.34	+10	42	82
20	− 4	10	17.1	10.69	4.29	− 6	3.08	9.35	+10	42	82
21	−10	11	15.5	10.83	4.32	−17	3.07	9.35	+ 8	42	82
22	−15	11	13.9	10.96	4.35	−25	3.04	9.35	+ 5	42	82
23	−18	+12	12.3	+11.10	−4.38	−29	2.99	+9.35	+ 1	42	82

Tag	0h Welt-Zeit								
	St.-Zt. Grw.	t	f	log g	G	log h	H	log i	i
1931									
	h	s	s		h m		h m		"
März 23	12.0	0.2209	+0.411	0.9881	19 4.1	1.2737	17 53.8	0.9108_n	−8.143
24	12.0	0.2236	0.418	0.9887	19 5.1	1.2737	17 49.5	0.9106_n	8.139
25	12.1	0.2264	0.424	0.9892	19 6.1	1.2738	17 45.2	0.9102_n	8.132
26	12.2	0.2291	0.431	0.9898	19 7.1	1.2739	17 40.9	0.9097_n	8.122
27	12.2	0.2318	0.438	0.9903	19 8.0	1.2740	17 36.6	0.9090_n	8.110
28	12.3	0.2346	0.445	0.9908	19 9.0	1.2742	17 32.3	0.9082_n	8.095
29	12.4	0.2373	+0.451	0.9913	19 10.0	1.2743	17 28.0	0.9073_n	−8.078
30	12.4	0.2401	0.458	0.9918	19 11.0	1.2745	17 23.7	0.9063_n	8.059
31	12.5	0.2428	0.465	0.9922	19 12.0	1.2747	17 19.4	0.9051_n	8.038
April 1	12.6	0.2455	0.472	0.9927	19 13.1	1.2750	17 15.1	0.9038_n	8.014
2	12.6	0.2483	0.479	0.9931	19 14.1	1.2752	17 10.8	0.9024_n	7.988
3	12.7	0.2510	0.486	0.9935	19 15.1	1.2755	17 6.6	0.9009_n	7.959
4	12.8	0.2537	+0.492	0.9939	19 16.2	1.2758	17 2.3	0.8992_n	−7.928
5	12.8	0.2565	0.499	0.9943	19 17.2	1.2761	16 58.1	0.8974_n	7.895
6	12.9	0.2592	0.506	0.9946	19 18.3	1.2765	16 53.8	0.8954_n	7.859
7	13.0	0.2620	0.513	0.9950	19 19.4	1.2768	16 49.6	0.8933_n	7.821
8	13.0	0.2647	0.521	0.9953	19 20.4	1.2772	16 45.4	0.8910_n	7.781
9	13.1	0.2674	0.528	0.9957	19 21.5	1.2776	16 41.2	0.8886_n	7.738
10	13.2	0.2702	+0.535	0.9960	19 22.6	1.2780	16 37.0	0.8861_n	−7.693
11	13.2	0.2729	0.542	0.9964	19 23.7	1.2785	16 32.8	0.8834_n	7.646
12	13.3	0.2756	0.550	0.9967	19 24.8	1.2789	16 28.6	0.8806_n	7.597
13	13.3	0.2784	0.557	0.9970	19 26.0	1.2794	16 24.4	0.8777_n	7.546
14	13.4	0.2811	0.564	0.9974	19 27.1	1.2799	16 20.3	0.8747_n	7.493
15	13.5	0.2839	0.572	0.9977	19 28.3	1.2804	16 16.1	0.8714_n	7.437
16	13.5	0.2866	+0.580	0.9980	19 29.4	1.2809	16 12.0	0.8680_n	−7.379
17	13.6	0.2893	0.587	0.9983	19 30.6	1.2814	16 7.9	0.8645_n	7.319
18	13.7	0.2921	0.595	0.9987	19 31.8	1.2819	16 3.8	0.8608_n	7.257
19	13.7	0.2948	0.603	0.9990	19 33.0	1.2825	15 59.7	0.8569_n	7.193
20	13.8	0.2976	0.611	0.9993	19 34.2	1.2831	15 55.6	0.8529_n	7.127
21	13.9	0.3003	0.619	0.9997	19 35.4	1.2836	15 51.5	0.8487_n	7.058
22	13.9	0.3030	+0.627	1.0000	19 36.7	1.2842	15 47.5	0.8444_n	−6.988
23	14.0	0.3058	0.635	1.0004	19 37.9	1.2848	15 43.4	0.8399_n	6.916
24	14.1	0.3085	0.643	1.0008	19 39.2	1.2854	15 39.4	0.8352_n	6.842
25	14.1	0.3112	0.651	1.0012	19 40.4	1.2860	15 35.4	0.8303_n	6.766
26	14.2	0.3140	0.660	1.0016	19 41.7	1.2866	15 31.4	0.8253_n	6.688
27	14.3	0.3167	0.668	1.0020	19 43.0	1.2872	15 27.4	0.8201_n	6.608
28	14.3	0.3195	+0.677	1.0025	19 44.3	1.2878	15 23.4	0.8146_n	−6.526
29	14.4	0.3222	0.685	1.0029	19 45.6	1.2885	15 19.4	0.8091_n	6.443
30	14.5	0.3249	0.694	1.0034	19 46.9	1.2891	15 15.5	0.8033_n	6.357
Mai 1	14.5	0.3277	0.703	1.0039	19 48.2	1.2897	15 11.5	0.7973_n	6.270
2	14.6	0.3304	0.712	1.0044	19 49.5	1.2904	15 7.6	0.7911_n	6.181
3	14.7	0.3331	+0.721	1.0050	19 50.9	1.2910	15 3.7	0.7846_n	−6.090

Tag	0^h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1931.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1931	in $0.^s001$	in $0.''01$				in $0.''01$	23° 27′		in $0.''01$	in 0.001	
März 23	−18	+12	$12.^h3$	+11.″10	−4.″38	−29	2.″99	+9.″35	+ 1	42	82
24	−18	12	10.8	11.24	4.41	−29	2.95	9.35	− 4	42	82
25	−15	12	9.4	11.38	4.43	−24	2.90	9.35	− 8	42	82
26	− 9	12	8.0	11.51	4.46	−15	2.88	9.35	−11	43	82
27	− 2	11	6.5	11.65	4.49	− 3	2.87	9.35	−11	43	82
28	+ 5	9	4.7	11.79	4.52	+ 8	2.89	9.35	− 9	43	82
29	+10	+ 8	2.4	+11.93	−4.54	+17	2.93	+9.35	− 5	43	82
30	+12	8	23.7	12.07	4.57	+20	2.98	9.34	+ 1	43	82
31	+11	9	21.4	12.20	4.60	+18	3.02	9.34	+ 6	43	82
April 1	+ 7	11	19.7	12.34	4.62	+11	3.06	9.34	+10	43	82
2	+ 1	11	18.2	12.48	4.65	+ 1	3.06	9.33	+11	43	82
3	− 5	11	16.7	12.62	4.67	− 9	3.05	9.33	+10	43	82
4	−10	+ 9	15.1	+12.75	−4.70	−16	3.00	+9.32	+ 7	43	82
5	−11	7	12.9	12.89	4.72	−18	2.95	9.31	+ 2	43	82
6	−10	7	10.0	13.03	4.74	−16	2.88	9.30	− 4	43	82
7	− 5	8	7.5	13.17	4.76	− 8	2.84	9.30	− 8	43	82
8	+ 1	10	5.8	13.30	4.78	+ 1	2.80	9.29	−10	43	82
9	+ 7	11	4.3	13.44	4.80	+12	2.79	9.28	−10	43	82
10	+13	+12	3.1	+13.58	−4.82	+21	2.80	+9.27	− 9	43	83
11	+16	12	1.7	13.72	4.84	+26	2.82	9.26	− 5	43	83
12	+17	11	0.3	13.85	4.86	+28	2.85	9.25	− 1	43	83
13	+15	10	22.8	13.99	4.88	+24	2.88	9.24	+ 3	43	83
14	+11	10	21.1	14.13	4.89	+18	2.90	9.23	+ 7	43	83
15	+ 5	10	19.4	14.27	4.91	+ 9	2.92	9.22	+ 9	43	83
16	− 1	+10	17.7	+14.40	−4.92	− 2	2.91	+9.21	+10	43	83
17	− 8	10	16.0	14.54	4.93	−13	2.89	9.19	+ 9	43	83
18	−13	11	14.4	14.68	4.94	−22	2.84	9.18	+ 6	43	83
19	−17	11	12.8	14.82	4.95	−27	2.79	9.17	+ 2	43	83
20	−17	12	11.2	14.96	4.96	−29	2.73	9.15	− 2	43	84
21	−15	12	9.7	15.09	4.97	−25	2.66	9.14	− 7	43	84
22	−10	+12	8.3	+15.23	−4.98	−17	2.62	+9.12	−10	44	84
23	− 4	11	6.8	15.37	4.98	− 6	2.59	9.11	−11	44	84
24	+ 3	10	5.1	15.51	4.99	+ 6	2.59	9.10	−10	44	84
25	+ 9	8	3.1	15.64	4.99	+15	2.61	9.08	− 6	44	84
26	+12	8	0.6	15.78	4.99	+20	2.64	9.07	− 1	44	84
27	+12	9	22.1	15.92	4.99	+19	2.68	9.05	+ 4	44	84
28	+ 8	+10	20.0	+16.06	−4.99	+13	2.71	+9.03	+ 9	44	84
29	+ 2	11	18.5	16.19	4.98	+ 3	2.71	9.02	+11	44	85
30	− 4	11	17.0	16.33	4.98	− 7	2.69	9.00	+11	44	85
Mai 1	−10	10	15.4	16.47	4.97	−16	2.65	8.99	+ 8	44	85
2	−12	9	13.5	16.61	4.97	−20	2.59	8.97	+ 3	44	85
3	−12	+ 8	11.0	+16.74	−4.96	−19	2.51	+8.95	− 2	44	85

Tag	0h Welt-Zeit								
	St.-Zt. Grw.	t	f	$\log g$	G	$\log h$	H	$\log i$	i
1931	h	s	s		h m		h m		"
Mai 3	14.7	0.3331	+0.721	1.0050	19 50.9	1.2910	15 3.7	0.7846_n	−6.090
4	14.7	0.3359	0.730	1.0055	19 52.2	1.2916	14 59.8	0.7780_n	5.998
5	14.8	0.3386	0.739	1.0061	19 53.6	1.2922	14 55.9	0.7711_n	5.904
6	14.9	0.3414	0.748	1.0067	19 55.0	1.2929	14 52.1	0.7640_n	5.808
7	14.9	0.3441	0.757	1.0073	19 56.3	1.2935	14 48.2	0.7567_n	5.711
8	15.0	0.3468	0.767	1.0080	19 57.7	1.2941	14 44.4	0.7491_n	5.612
9	15.1	0.3496	+0.776	1.0087	19 59.1	1.2948	14 40.5	0.7412_n	−5.511
10	15.1	0.3523	0.786	1.0094	20 0.5	1.2954	14 36.7	0.7331_n	5.409
11	15.2	0.3550	0.795	1.0102	20 1.9	1.2960	14 32.9	0.7247_n	5.305
12	15.3	0.3578	0.805	1.0110	20 3.3	1.2966	14 29.1	0.7160_n	5.200
13	15.3	0.3605	0.815	1.0118	20 4.7	1.2972	14 25.3	0.7071_n	5.094
14	15.4	0.3633	0.825	1.0127	20 6.1	1.2978	14 21.6	0.6978_n	4.987
15	15.5	0.3660	+0.835	1.0136	20 7.5	1.2984	14 17.8	0.6882_n	−4.878
16	15.5	0.3687	0.845	1.0145	20 8.9	1.2990	14 14.1	0.6783_n	4.768
17	15.6	0.3715	0.855	1.0154	20 10.3	1.2996	14 10.3	0.6680_n	4.656
18	15.6	0.3742	0.865	1.0163	20 11.8	1.3002	14 6.6	0.6573_n	4.543
19	15.7	0.3770	0.875	1.0173	20 13.2	1.3007	14 2.9	0.6463_n	4.429
20	15.8	0.3797	0.886	1.0183	20 14.6	1.3013	13 59.2	0.6349_n	4.314
21	15.8	0.3824	+0.896	1.0194	20 16.0	1.3018	13 55.5	0.6229_n	−4.197
22	15.9	0.3852	0.907	1.0206	20 17.4	1.3023	13 51.8	0.6106_n	4.079
23	16.0	0.3879	0.917	1.0218	20 18.8	1.3028	13 48.1	0.5977_n	3.960
24	16.0	0.3906	0.928	1.0230	20 20.2	1.3033	13 44.5	0.5843_n	3.840
25	16.1	0.3934	0.938	1.0242	20 21.6	1.3038	13 40.8	0.5704_n	3.719
26	16.2	0.3961	0.949	1.0254	20 23.0	1.3043	13 37.2	0.5559_n	3.597
27	16.2	0.3989	+0.960	1.0267	20 24.4	1.3048	13 33.6	0.5408_n	−3.474
28	16.3	0.4016	0.971	1.0280	20 25.8	1.3052	13 29.9	0.5250_n	3.350
29	16.4	0.4043	0.982	1.0294	20 27.2	1.3057	13 26.3	0.5085_n	3.225
30	16.4	0.4071	0.993	1.0308	20 28.6	1.3061	13 22.7	0.4912_n	3.099
31	16.5	0.4098	1.004	1.0322	20 29.9	1.3065	13 19.1	0.4732_n	2.973
Juni 1	16.6	0.4125	1.015	1.0336	20 31.3	1.3069	13 15.5	0.4542_n	2.846
2	16.6	0.4153	+1.026	1.0351	20 32.6	1.3073	13 11.9	0.4342_n	−2.718
3	16.7	0.4180	1.037	1.0366	20 33.9	1.3076	13 8.4	0.4131_n	2.589
4	16.8	0.4208	1.049	1.0382	20 35.3	1.3080	13 4.8	0.3909_n	2.460
5	16.8	0.4235	1.060	1.0398	20 36.6	1.3083	13 1.2	0.3674_n	2.330
6	16.9	0.4262	1.071	1.0414	20 37.9	1.3086	12 57.7	0.3422_n	2.199
7	17.0	0.4290	1.083	1.0431	20 39.2	1.3089	12 54.1	0.3156_n	2.068
8	17.0	0.4317	+1.094	1.0448	20 40.4	1.3092	12 50.6	0.2869_n	−1.936
9	17.1	0.4344	1.106	1.0465	20 41.7	1.3094	12 47.1	0.2562_n	1.804
10	17.2	0.4372	1.117	1.0482	20 42.9	1.3097	12 43.5	0.2230_n	1.671
11	17.2	0.4399	1.129	1.0500	20 44.2	1.3099	12 40.0	0.1870_n	1.538
12	17.3	0.4427	1.140	1.0518	20 45.4	1.3101	12 36.5	0.1474_n	1.404
13	17.4	0.4454	+1.152	1.0536	20 46.6	1.3103	12 33.0	0.1038_n	−1.270

Tag	0ʰ Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1931.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1931	s in 0.001	" in 0.01				" in 0.01	23° 27'		" in 0.01	in 0.001	
Mai 3	−12	+ 8	h 11.0	+16.74"	−4.96"	−19	2.51"	+8.95"	− 2	44	85
4	− 8	8	8.5	16.88	4.95	−13	2.45	8.94	− 7	44	85
5	− 2	10	6.5	17.02	4.94	− 3	2.40	8.92	−10	44	85
6	+ 5	11	4.9	17.16	4.92	+ 8	2.37	8.90	−11	44	85
7	+11	12	3.5	17.29	4.91	+18	2.37	8.89	− 9	44	86
8	+15	12	2.2	17.43	4.89	+25	2.38	8.87	− 6	44	86
9	+17	+11	0.7	+17.57	−4.88	+28	2.41	+8.85	− 2	44	86
10	+16	10	23.2	17.71	4.86	+26	2.43	8.84	+ 2	45	86
11	+13	10	21.6	17.84	4.84	+20	2.45	8.82	+ 6	45	86
12	+ 7	10	19.9	17.98	4.82	+12	2.46	8.81	+ 9	45	86
13	+ 1	10	18.2	18.12	4.79	+ 1	2.46	8.79	+10	45	86
14	− 6	10	16.6	18.26	4.77	− 9	2.44	8.78	+ 9	45	86
15	−11	+10	14.9	+18.40	−4.74	−19	2.40	+8.76	+ 7	45	87
16	−16	11	13.3	18.53	4.72	−25	2.35	8.74	+ 4	45	87
17	−17	11	11.8	18.67	4.69	−28	2.28	8.73	− 1	45	87
18	−16	11	10.1	18.81	4.66	−25	2.22	8.71	− 5	45	87
19	−11	12	8.6	18.95	4.63	−18	2.17	8.70	− 9	45	87
20	− 5	11	7.1	19.08	4.60	− 8	2.13	8.68	−11	45	87
21	+ 2	+10	5.5	+19.22	−4.57	+ 3	2.12	+8.67	−10	46	87
22	+ 8	9	3.6	19.36	4.53	+14	2.14	8.66	− 7	46	87
23	+12	8	1.3	19.50	4.50	+20	2.17	8.64	− 3	46	87
24	+13	9	22.9	19.63	4.46	+21	2.21	8.63	+ 3	46	88
25	+10	10	20.7	19.77	4.42	+16	2.24	8.62	+ 7	46	88
26	+ 4	11	19.0	19.91	4.38	+ 7	2.26	8.60	+10	46	88
27	− 2	+11	17.5	+20.05	−4.34	− 4	2.25	+8.59	+11	46	88
28	− 8	11	15.9	20.18	4.30	−14	2.22	8.58	+ 9	46	88
29	−12	9	14.1	20.32	4.26	−20	2.16	8.57	+ 5	47	88
30	−13	9	11.9	20.46	4.22	−21	2.10	8.56	0	47	88
31	−10	8	9.5	20.60	4.17	−17	2.04	8.55	− 5	47	88
Juni 1	− 5	10	7.3	20.73	4.13	− 8	1.99	8.54	− 9	47	88
2	+ 2	+11	5.6	+20.87	−4.09	+ 3	1.96	+8.53	−11	47	88
3	+ 8	11	4.1	21.01	4.04	+14	1.96	8.52	−10	47	88
4	+14	12	2.7	21.15	3.99	+22	1.97	8.51	− 7	48	88
5	+16	11	1.2	21.29	3.94	+27	2.00	8.50	− 3	48	89
6	+16	11	23.7	21.42	3.90	+27	2.04	8.49	+ 1	48	89
7	+14	10	22.0	21.56	3.85	+22	2.07	8.49	+ 5	48	89
8	+ 9	+10	20.4	+21.70	−3.80	+15	2.10	+8.48	+ 8	48	89
9	+ 3	10	18.7	21.84	3.75	+ 4	2.11	8.47	+10	48	89
10	− 4	10	17.0	21.97	3.70	− 6	2.10	8.47	+10	49	89
11	−10	10	15.4	22.11	3.64	−16	2.07	8.46	+ 8	49	89
12	−15	11	13.8	22.25	3.59	−24	2.04	8.46	+ 5	49	89
13	−17	+11	12.2	+22.39	−3.54	−28	1.99	+8.45	+ 1	49	89

Reduktionsgrößen 1931

Tag	0h Welt-Zeit								
	St.-Zt. Grw.	t	f	log g	G	log h	H	log i	i
1931	h	s	s		h m		h m		"
Juni 13	17.4	0.4454	+1.152	1.0536	20 46.6	1.3103	12 33.0	0.1038$_n$	−1.270
14	17.4	0.4481	1.164	1.0554	20 47.8	1.3105	12 29.4	0.0550$_n$	1.135
15	17.5	0.4509	1.175	1.0573	20 49.0	1.3106	12 25.9	0.0000$_n$	1.000
16	17.6	0.4536	1.187	1.0591	20 50.2	1.3107	12 22.4	9.9370$_n$	0.865
17	17.6	0.4564	1.199	1.0610	20 51.3	1.3108	12 18.9	9.8633$_n$	0.730
18	17.7	0.4591	1.210	1.0629	20 52.4	1.3109	12 15.4	9.7745$_n$	0.595
19	17.8	0.4618	+1.222	1.0649	20 53.5	1.3110	12 11.9	9.6628$_n$	−0.460
20	17.8	0.4646	1.234	1.0669	20 54.6	1.3111	12 8.4	9.5119$_n$	0.325
21	17.9	0.4673	1.246	1.0689	20 55.7	1.3111	12 4.9	9.2765$_n$	0.189
22	17.9	0.4700	1.257	1.0709	20 56.8	1.3111	12 1.4	8.7243$_n$	−0.053
23	18.0	0.4728	1.269	1.0729	20 57.8	1.3111	11 57.9	8.9138	+0.082
24	18.1	0.4755	1.281	1.0749	20 58.8	1.3111	11 54.4	9.3385	0.218
25	18.1	0.4783	+1.293	1.0769	20 59.8	1.3111	11 50.9	9.5490	+0.354
26	18.2	0.4810	1.304	1.0790	21 0.8	1.3110	11 47.4	9.6893	0.489
27	18.3	0.4837	1.316	1.0811	21 1.8	1.3109	11 43.9	9.7952	0.624
28	18.3	0.4865	1.328	1.0831	21 2.8	1.3108	11 40.4	9.8802	0.759
29	18.4	0.4892	1.339	1.0852	21 3.7	1.3107	11 36.9	9.9513	0.894
30	18.5	0.4919	1.351	1.0872	21 4.6	1.3106	11 33.4	0.0124	1.029
Juli 1	18.5	0.4947	+1.363	1.0893	21 5.5	1.3104	11 29.8	0.0656	+1.163
2	18.6	0.4974	1.374	1.0915	21 6.4	1.3102	11 26.3	0.1129	1.297
3	18.7	0.5002	1.386	1.0936	21 7.2	1.3100	11 22.8	0.1553	1.430
4	18.7	0.5029	1.397	1.0957	21 8.1	1.3098	11 19.3	0.1940	1.563
5	18.8	0.5056	1.409	1.0978	21 8.9	1.3096	11 15.8	0.2294	1.696
6	18.9	0.5084	1.420	1.0999	21 9.7	1.3094	11 12.3	0.2620	1.828
7	18.9	0.5111	+1.432	1.1020	21 10.5	1.3091	11 8.7	0.2923	+1.960
8	19.0	0.5138	1.443	1.1041	21 11.3	1.3088	11 5.2	0.3206	2.092
9	19.1	0.5166	1.455	1.1063	21 12.1	1.3085	11 1.7	0.3469	2.223
10	19.1	0.5193	1.466	1.1084	21 12.8	1.3082	10 58.1	0.3716	2.353
11	19.2	0.5221	1.477	1.1105	21 13.5	1.3079	10 54.6	0.3948	2.482
12	19.3	0.5248	1.488	1.1126	21 14.2	1.3076	10 51.0	0.4168	2.611
13	19.3	0.5275	+1.500	1.1147	21 14.9	1.3072	10 47.5	0.4376	+2.739
14	19.4	0.5303	1.511	1.1168	21 15.5	1.3068	10 43.9	0.4573	2.866
15	19.5	0.5330	1.522	1.1189	21 16.2	1.3064	10 40.3	0.4760	2.992
16	19.5	0.5358	1.533	1.1209	21 16.8	1.3060	10 36.7	0.4939	3.118
17	19.6	0.5385	1.544	1.1230	21 17.5	1.3056	10 33.1	0.5109	3.243
18	19.7	0.5412	1.555	1.1251	21 18.1	1.3052	10 29.5	0.5272	3.367
19	19.7	0.5440	+1.566	1.1271	21 18.7	1.3047	10 25.9	0.5428	+3.490
20	19.8	0.5467	1.576	1.1292	21 19.2	1.3043	10 22.3	0.5577	3.612
21	19.9	0.5494	1.587	1.1312	21 19.8	1.3038	10 18.7	0.5721	3.733
22	19.9	0.5522	1.598	1.1333	21 20.3	1.3033	10 15.1	0.5858	3.853
23	20.0	0.5549	1.608	1.1353	21 20.9	1.3028	10 11.5	0.5991	3.973
24	20.1	0.5577	+1.619	1.1373	21 21.4	1.3023	10 7.8	0.6118	+4.091

Tag	0h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1931.0	Δψ	Δψ'	Wahre Schiefe	Δε	Δε'	j	k
1931	in 0.001	in 0.01	h	"	"	in 0.01	23° 27' "	"	in 0.01	in 0.001	
Juni 13	−17	+11	12.2	+22.39	−3.54	−28	1.99	+8.45	+ 1	49	89
14	−17	11	10.7	22.52	3.49	−27	1.94	8.45	− 4	49	89
15	−13	12	9.1	22.66	3.43	−21	1.89	8.45	− 8	50	89
16	− 7	11	7.6	22.80	3.38	−12	1.86	8.44	−10	50	89
17	0	11	6.0	22.94	3.33	0	1.86	8.44	−11	50	89
18	+ 7	10	4.1	23.07	3.27	+11	1.88	8.44	− 9	50	89
19	+12	+ 9	2.1	+23.21	−3.22	+20	1.91	+8.44	− 5	51	89
20	+14	9	23.7	23.35	3.17	+23	1.97	8.44	+ 1	51	89
21	+12	10	21.5	23.49	3.11	+20	2.02	8.44	+ 6	51	89
22	+ 7	11	19.7	23.62	3.06	+12	2.05	8.44	+10	51	89
23	+ 1	11	18.2	23.76	3.00	+ 1	2.07	8.44	+11	51	89
24	− 6	11	16.6	23.90	2.95	−10	2.06	8.44	+10	52	89
25	−11	+10	14.8	+24.04	−2.89	−18	2.02	+8.45	+ 6	52	89
26	−13	9	12.7	24.17	2.84	−21	1.98	8.45	+ 1	52	89
27	−12	8	10.3	24.31	2.78	−19	1.93	8.45	− 4	52	89
28	− 7	9	8.0	24.45	2.73	−12	1.89	8.46	− 8	53	89
29	− 1	10	6.1	24.59	2.68	− 1	1.87	8.46	−10	53	89
30	+ 6	11	4.6	24.73	2.62	+10	1.87	8.47	−11	53	89
Juli 1	+12	+11	3.2	+24.86	−2.57	+19	1.90	+8.48	− 8	53	89
2	+15	11	1.7	25.00	2.52	+25	1.94	8.48	− 5	54	89
3	+16	10	0.2	25.14	2.47	+26	1.99	8.49	0	54	89
4	+14	10	22.5	25.28	2.42	+24	2.04	8.50	+ 4	54	89
5	+10	10	20.9	25.41	2.36	+17	2.08	8.51	+ 7	55	89
6	+ 4	10	19.1	25.55	2.31	+ 7	2.11	8.51	+ 9	55	89
7	− 2	+10	17.5	+25.69	−2.26	− 4	2.12	+8.52	+10	55	89
8	− 9	10	15.8	25.83	2.22	−14	2.12	8.53	+ 9	55	89
9	−14	11	14.2	25.96	2.17	−22	2.10	8.54	+ 6	56	89
10	−17	11	12.6	26.10	2.12	−28	2.07	8.56	+ 2	56	88
11	−17	12	11.1	26.24	2.07	−28	2.03	8.57	− 3	56	88
12	−15	12	9.7	26.38	2.03	−24	2.00	8.58	− 7	56	88
13	−10	+12	8.2	+26.51	−1.98	−16	1.98	+8.59	−10	57	88
14	− 3	11	6.6	26.65	1.94	− 4	1.98	8.60	−11	57	88
15	+ 4	10	4.9	26.79	1.89	+ 7	2.01	8.62	−10	57	88
16	+10	9	2.8	26.93	1.85	+17	2.06	8.63	− 6	58	88
17	+14	9	0.4	27.06	1.81	+22	2.12	8.64	− 1	58	88
18	+13	10	22.2	27.20	1.77	+22	2.19	8.66	+ 4	58	88
19	+10	+11	20.4	+27.34	−1.73	+16	2.24	+8.67	+ 9	58	88
20	+ 4	11	18.8	27.48	1.69	+ 6	2.28	8.69	+11	59	88
21	− 3	11	17.3	27.62	1.65	− 5	2.29	8.70	+11	59	88
22	− 9	10	15.6	27.75	1.61	−14	2.28	8.72	+ 8	59	87
23	−12	8	13.5	27.89	1.58	−19	2.25	8.74	+ 3	59	87
24	−12	+ 8	11.0	+28.03	−1.54	−19	2.21	+8.75	− 2	60	87

Tag		0ʰ Welt-Zeit								
		St.-Zt. Grw.	*t*	*f*	log *g*	*G*	log *h*	*H*	log *i*	*i*
1931										
		h	h	s		h m		h m		"
Juli	24	20.1	0.5577	+1.619	1.1373	21 21.4	1.3023	10 7.8	0.6118	+4.091
	25	20.1	0.5604	1.629	1.1393	21 21.9	1.3017	10 4.2	0.6241	4.208
	26	20.2	0.5631	1.640	1.1413	21 22.4	1.3012	10 0.5	0.6358	4.323
	27	20.2	0.5659	1.650	1.1433	21 22.9	1.3007	9 56.8	0.6471	4.437
	28	20.3	0.5686	1.660	1.1453	21 23.4	1.3001	9 53.1	0.6581	4.551
	29	20.4	0.5713	1.670	1.1472	21 23.8	1.2995	9 49.4	0.6687	4.663
	30	20.4	0.5741	+1.680	1.1491	21 24.3	1.2990	9 45.7	0.6789	+4.774
	31	20.5	0.5768	1.690	1.1510	21 24.7	1.2984	9 42.0	0.6887	4.883
Aug.	1	20.6	0.5796	1.700	1.1529	21 25.1	1.2978	9 38.3	0.6982	4.991
	2	20.6	0.5823	1.710	1.1548	21 25.5	1.2972	9 34.5	0.7074	5.098
	3	20.7	0.5850	1.720	1.1567	21 25.9	1.2966	9 30.8	0.7163	5.204
	4	20.8	0.5878	1.729	1.1585	21 26.3	1.2960	9 27.0	0.7249	5.308
	5	20.8	0.5905	+1.739	1.1603	21 26.7	1.2954	9 23.3	0.7332	+5.410
	6	20.9	0.5932	1.749	1.1621	21 27.1	1.2948	9 19.5	0.7412	5.511
	7	21.0	0.5960	1.758	1.1639	21 27.4	1.2942	9 15.7	0.7490	5.610
	8	21.0	0.5987	1.767	1.1657	21 27.8	1.2935	9 11.9	0.7565	5.708
	9	21.1	0.6015	1.777	1.1675	21 28.1	1.2929	9 8.1	0.7638	5.805
	10	21.2	0.6042	1.786	1.1692	21 28.5	1.2923	9 4.2	0.7709	5.900
	11	21.2	0.6069	+1.795	1.1709	21 28.8	1.2916	9 0.4	0.7776	+5.993
	12	21.3	0.6097	1.804	1.1726	21 29.1	1.2910	8 56.5	0.7843	6.085
	13	21.4	0.6124	1.813	1.1743	21 29.4	1.2904	8 52.7	0.7906	6.175
	14	21.4	0.6151	1.822	1.1759	21 29.7	1.2898	8 48.8	0.7968	6.263
	15	21.5	0.6179	1.830	1.1776	21 30.0	1.2891	8 44.9	0.8027	6.349
	16	21.6	0.6206	1.839	1.1792	21 30.3	1.2885	8 41.0	0.8085	6.434
	17	21.6	0.6234	+1.848	1.1808	21 30.6	1.2879	8 37.1	0.8140	+6.517
	18	21.7	0.6261	1.856	1.1824	21 30.9	1.2873	8 33.1	0.8194	6.598
	19	21.8	0.6288	1.865	1.1840	21 31.2	1.2867	8 29.2	0.8246	6.677
	20	21.8	0.6316	1.873	1.1855	21 31.5	1.2861	8 25.2	0.8296	6.754
	21	21.9	0.6343	1.881	1.1870	21 31.8	1.2855	8 21.3	0.8344	6.829
	22	22.0	0.6371	1.889	1.1885	21 32.0	1.2849	8 17.3	0.8390	6.903
	23	22.0	0.6398	+1.897	1.1900	21 32.3	1.2843	8 13.3	0.8435	+6.975
	24	22.1	0.6425	1.905	1.1915	21 32.6	1.2837	8 9.3	0.8479	7.045
	25	22.2	0.6453	1.913	1.1929	21 32.8	1.2832	8 5.2	0.8521	7.113
	26	22.2	0.6480	1.921	1.1943	21 33.1	1.2826	8 1.2	0.8561	7.179
	27	22.3	0.6507	1.929	1.1957	21 33.4	1.2821	7 57.2	0.8599	7.243
	28	22.4	0.6535	1.937	1.1971	21 33.6	1.2815	7 53.1	0.8636	7.304
	29	22.4	0.6562	+1.945	1.1984	21 33.9	1.2810	7 49.0	0.8671	+7.364
	30	22.5	0.6590	1.952	1.1997	21 34.1	1.2805	7 45.0	0.8705	7.422
	31	22.5	0.6617	1.960	1.2010	21 34.4	1.2800	7 40.9	0.8737	7.477
Sept.	1	22.6	0.6644	1.967	1.2023	21 34.6	1.2795	7 36.8	0.8769	7.531
	2	22.7	0.6672	1.975	1.2036	21 34.9	1.2791	7 32.7	0.8798	7.583
	3	22.7	0.6699	+1.982	1.2049	21 35.1	1.2786	7 28.5	0.8826	+7.632

Tag	f′	g′	G′	Allgemeine Präzession seit 1931.0	Δψ	Δψ′	Wahre Schiefe	Δε	Δε′	j	k
	0h Welt-Zeit										
1931	in 0.″001	in 0.″01				in 0.″01	23° 27′		in 0.″01	in 0.001	
Juli 24	−12	+ 8	11.0h	+28.″03	−1.″54	−19	2.″21	+8.″75	− 2	60	87
25	− 8	9	8.5	28.17	1.51	−13	2.18	8.77	− 7	60	87
26	− 2	10	6.6	28.30	1.48	− 4	2.16	8.79	−10	60	87
27	+ 4	11	5.0	28.44	1.45	+ 7	2.17	8.80	−11	61	87
28	+10	11	3.6	28.58	1.42	+17	2.20	8.82	− 9	61	87
29	+15	11	2.2	28.72	1.39	+24	2.25	8.84	− 6	61	87
30	+16	+11	0.7	+28.85	−1.36	+27	2.31	+8.86	− 2	61	87
31	+15	10	23.0	28.99	1.34	+25	2.37	8.88	+ 3	62	87
Aug. 1	+12	10	21.3	29.13	1.31	+19	2.43	8.90	+ 6	62	86
2	+ 6	10	19.6	29.27	1.29	+10	2.47	8.91	+ 9	62	86
3	0	10	18.0	29.40	1.27	0	2.50	8.93	+10	62	86
4	− 7	10	16.3	29.54	1.25	−11	2.51	8.95	+ 9	63	86
5	−13	+11	14.7	+29.68	−1.23	−21	2.50	+8.97	+ 7	63	86
6	−16	11	13.1	29.82	1.21	−27	2.48	8.99	+ 3	63	86
7	−18	12	11.6	29.95	1.19	−29	2.45	9.01	− 1	64	86
8	−16	12	10.2	30.09	1.18	−27	2.43	9.03	− 5	64	86
9	−12	12	8.8	30.23	1.16	−20	2.41	9.05	− 9	64	85
10	− 6	11	7.3	30.37	1.15	−10	2.41	9.06	−11	64	85
11	+ 1	+10	5.7	+30.50	−1.14	+ 2	2.43	+9.08	−10	65	85
12	+ 8	9	3.7	30.64	1.13	+13	2.48	9.10	− 7	65	85
13	+12	8	1.3	30.78	1.12	+20	2.55	9.12	− 3	65	85
14	+13	9	22.9	30.92	1.12	+21	2.62	9.14	+ 3	65	85
15	+11	10	20.9	31.06	1.11	+17	2.68	9.16	+ 7	66	85
16	+ 6	11	19.3	31.19	1.11	+ 9	2.73	9.18	+10	66	85
17	− 1	+11	17.8	+31.33	−1.10	− 1	2.76	+9.20	+11	66	84
18	− 7	10	16.3	31.47	1.10	−11	2.75	9.22	+ 9	66	84
19	−11	8	14.3	31.61	1.10	−17	2.73	9.23	+ 5	66	84
20	−11	7	11.8	31.74	1.10	−19	2.69	9.25	0	67	84
21	− 9	8	9.1	31.88	1.11	−14	2.65	9.27	− 5	67	84
22	− 4	9	6.9	32.02	1.11	− 6	2.63	9.29	− 9	67	84
23	+ 3	+11	5.3	+32.16	−1.11	+ 5	2.63	+9.30	−11	67	84
24	+10	12	3.9	32.29	1.12	+16	2.66	9.32	−10	68	84
25	+14	12	2.5	32.43	1.13	+23	2.70	9.34	− 7	68	84
26	+17	11	1.1	32.57	1.14	+27	2.76	9.35	− 3	68	83
27	+16	11	23.5	32.71	1.15	+27	2.81	9.37	+ 1	68	83
28	+13	10	21.9	32.84	1.16	+22	2.87	9.38	+ 5	69	83
29	+ 9	+10	20.2	+32.98	−1.17	+14	2.91	+9.40	+ 8	69	83
30	+ 2	10	18.5	33.12	1.18	+ 3	2.94	9.41	+10	69	83
31	− 5	10	16.9	33.26	1.20	− 7	2.95	9.43	+10	69	83
Sept. 1	−11	10	15.2	33.39	1.21	−17	2.95	9.44	+ 8	69	83
2	−15	11	13.6	33.53	1.23	−25	2.93	9.46	+ 4	70	83
3	−18	+11	12.0	+33.67	−1.25	−29	2.89	+9.47	0	70	83

Reduktionsgrößen 1931

Tag		0^h Welt-Zeit								
		St.-Zt. Grw.	t	f	log g	G	log h	H	log i	i
1931		h	s	s		h m		h m		"
Sept.	3	22.7	0.6699	+1.982	1.2049	21 35.1	1.2786	7 28.5	0.8826	+7.632
	4	22.8	0.6726	1.989	1.2061	21 35.4	1.2782	7 24.4	0.8852	7.678
	5	22.9	0.6754	1.997	1.2074	21 35.6	1.2778	7 20.3	0.8878	7.723
	6	22.9	0.6781	2.004	1.2086	21 35.9	1.2774	7 16.1	0.8902	7.766
	7	23.0	0.6809	2.011	1.2098	21 36.2	1.2770	7 11.9	0.8925	7.807
	8	23.1	0.6836	2.018	1.2110	21 36.4	1.2766	7 7.8	0.8946	7.845
	9	23.1	0.6863	+2.025	1.2121	21 36.7	1.2763	7 3.6	0.8966	+7.881
	10	23.2	0.6891	2.032	1.2133	21 37.0	1.2759	6 59.4	0.8984	7.914
	11	23.3	0.6918	2.039	1.2144	21 37.2	1.2756	6 55.2	0.9001	7.946
	12	23.3	0.6945	2.046	1.2155	21 37.5	1.2754	6 51.0	0.9018	7.976
	13	23.4	0.6973	2.053	1.2166	21 37.8	1.2751	6 46.8	0.9033	8.003
	14	23.5	0.7000	2.060	1.2176	21 38.1	1.2749	6 42.6	0.9046	8.027
	15	23.5	0.7028	+2.067	1.2187	21 38.3	1.2746	6 38.3	0.9057	+8.049
	16	23.6	0.7055	2.074	1.2197	21 38.6	1.2744	6 34.1	0.9069	8.070
	17	23.7	0.7082	2.080	1.2208	21 38.9	1.2743	6 29.9	0.9078	8.088
	18	23.7	0.7110	2.087	1.2218	21 39.2	1.2741	6 25.6	0.9086	8.103
	19	23.8	0.7137	2.094	1.2228	21 39.5	1.2740	6 21.4	0.9093	8.116
	20	23.9	0.7165	2.101	1.2238	21 39.8	1.2739	6 17.1	0.9099	8.126
	21	23.9	0.7192	+2.107	1.2248	21 40.1	1.2738	6 12.8	0.9103	+8.134
	22	0.0	0.7219	2.114	1.2257	21 40.4	1.2737	6 8.6	0.9106	8.140
	23	0.1	0.7247	2.121	1.2267	21 40.8	1.2737	6 4.3	0.9108	8.144
	24	0.1	0.7274	2.128	1.2276	21 41.1	1.2737	6 0.0	0.9109	8.146
	25	0.2	0.7301	2.134	1.2285	21 41.4	1.2737	5 55.8	0.9109	8.145
	26	0.3	0.7329	2.141	1.2295	21 41.8	1.2737	5 51.5	0.9107	8.141
	27	0.3	0.7356	+2.148	1.2304	21 42.1	1.2738	5 47.2	0.9103	+8.134
	28	0.4	0.7384	2.155	1.2313	21 42.5	1.2739	5 42.9	0.9099	8.126
	29	0.5	0.7411	2.161	1.2322	21 42.8	1.2740	5 38.7	0.9093	8.116
	30	0.5	0.7438	2.168	1.2331	21 43.2	1.2741	5 34.4	0.9086	8.103
Okt.	1	0.6	0.7466	2.175	1.2339	21 43.5	1.2743	5 30.1	0.9078	8.087
	2	0.6	0.7493	2.182	1.2348	21 43.9	1.2744	5 25.8	0.9068	8.069
	3	0.7	0.7520	+2.188	1.2357	21 44.3	1.2746	5 21.6	0.9057	+8.049
	4	0.8	0.7548	2.195	1.2366	21 44.7	1.2749	5 17.3	0.9045	8.026
	5	0.8	0.7575	2.202	1.2374	21 45.1	1.2751	5 13.0	0.9031	8.001
	6	0.9	0.7603	2.209	1.2383	21 45.5	1.2754	5 8.8	0.9017	7.974
	7	1.0	0.7630	2.216	1.2391	21 45.9	1.2757	5 4.5	0.9000	7.944
	8	1.0	0.7657	2.223	1.2399	21 46.3	1.2760	5 0.2	0.8983	7.912
	9	1.1	0.7685	+2.230	1.2408	21 46.7	1.2763	4 56.0	0.8964	+7.877
	10	1.2	0.7712	2.237	1.2416	21 47.2	1.2767	4 51.7	0.8943	7.840
	11	1.2	0.7739	2.244	1.2425	21 47.6	1.2770	4 47.5	0.8922	7.801
	12	1.3	0.7767	2.251	1.2433	21 48.0	1.2774	4 43.2	0.8898	7.759
	13	1.4	0.7794	2.259	1.2442	21 48.5	1.2778	4 39.0	0.8873	7.715
	14	1.4	0.7822	+2.266	1.2450	21 48.9	1.2783	4 34.8	0.8847	+7.669

Tag	0^h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1931.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1931	in 0.001 (s)	in 0.01 (″)	(h)	(″)	(″)	in 0.01 (″)	23°27′ (′)	(″)	in 0.01 (″)	in 0.001	
Sept. 3	−18	+11	12.0	+33.67	−1.25	−29	2.89	+9.47	0	70	83
4	−17	12	10.6	33.81	1.26	−28	2.86	9.48	− 4	70	83
5	−14	12	9.2	33.94	1.28	−23	2.84	9.50	− 8	70	83
6	− 9	12	7.9	34.08	1.30	−14	2.82	9.51	−10	70	82
7	− 2	11	6.4	34.22	1.32	− 3	2.83	9.52	−10	71	82
8	+ 5	9	4.7	34.36	1.34	+ 8	2.86	9.53	− 9	71	82
9	+10	+ 8	2.3	+34.50	−1.36	+16	2.91	+9.54	− 4	71	82
10	+12	8	23.6	34.63	1.39	+20	2.97	9.55	+ 1	71	82
11	+11	9	21.3	34.77	1.41	+17	3.03	9.56	+ 6	71	82
12	+ 6	11	19.5	34.91	1.43	+10	3.08	9.57	+10	71	82
13	0	11	18.1	35.05	1.46	+ 1	3.10	9.57	+11	72	82
14	− 6	11	16.6	35.18	1.48	− 9	3.09	9.58	+10	72	82
15	−10	+ 9	15.0	+35.32	−1.51	−16	3.06	+9.59	+ 6	72	82
16	−12	8	12.7	35.46	1.54	−19	3.02	9.59	+ 1	72	82
17	−10	7	9.9	35.60	1.56	−16	2.97	9.60	− 4	72	82
18	− 5	9	7.5	35.73	1.59	− 8	2.93	9.60	− 8	73	82
19	+ 2	11	5.6	35.87	1.62	+ 2	2.91	9.61	−11	73	82
20	+ 8	12	4.2	36.01	1.64	+14	2.91	9.61	−11	73	82
21	+14	+12	2.8	+36.15	−1.67	+23	2.93	+9.62	− 8	73	82
22	+17	12	1.5	36.28	1.70	+28	2.97	9.62	− 4	73	82
23	+18	11	0.0	36.42	1.73	+29	3.02	9.62	0	73	82
24	+15	11	22.4	36.56	1.76	+25	3.06	9.62	+ 4	74	82
25	+11	11	20.8	36.70	1.79	+18	3.10	9.62	+ 8	74	82
26	+ 5	10	19.2	36.83	1.81	+ 8	3.11	9.62	+10	74	82
27	− 2	+10	17.5	+36.97	−1.84	− 3	3.11	+9.62	+10	74	82
28	− 8	10	15.8	37.11	1.87	−14	3.09	9.62	+ 8	74	82
29	−13	10	14.1	37.25	1.90	−22	3.06	9.62	+ 5	74	82
30	−17	11	12.5	37.39	1.92	−27	3.02	9.61	+ 1	74	82
Okt. 1	−17	11	11.0	37.52	1.95	−28	2.97	9.61	− 3	75	82
2	−15	12	9.6	37.66	1.98	−24	2.92	9.61	− 7	75	82
3	−10	+12	8.2	+37.80	−2.00	−17	2.89	+9.60	−10	75	82
4	− 4	11	6.9	37.94	2.03	− 6	2.87	9.60	−11	75	82
5	+ 3	10	5.3	38.07	2.05	+ 4	2.88	9.59	− 9	75	82
6	+ 8	8	3.2	38.21	2.08	+13	2.91	9.59	− 6	75	82
7	+11	7	0.5	38.35	2.10	+18	2.95	9.58	− 1	75	82
8	+10	8	21.8	38.49	2.13	+17	2.99	9.57	+ 4	76	82
9	+ 7	+10	19.8	+38.62	−2.15	+11	3.03	+9.56	+ 9	76	82
10	+ 1	11	18.3	38.76	2.17	+ 2	3.04	9.55	+11	76	82
11	− 5	11	16.9	38.90	2.19	− 8	3.03	9.54	+11	76	82
12	−10	10	15.3	39.04	2.21	−16	2.99	9.53	+ 8	76	82
13	−13	9	13.4	39.17	2.23	−21	2.93	9.52	+ 3	76	83
14	−12	+ 8	10.9	+39.31	−2.25	−19	2.86	+9.51	− 2	76	83

Reduktionsgrößen 1931

Tag	0h Welt-Zeit								
	St.-Zt. Grw.	t	f	$\log g$	G	$\log h$	H	$\log i$	i
1931									
Okt. 14	h 1.4	s 0.7822	s +2.266	1.2450	h m 21 48.9	1.2783	h m 4 34.8	0.8847	" +7.669
15	1.5	0.7849	2.273	1.2458	21 49.4	1.2787	4 30.5	0.8820	7.621
16	1.6	0.7876	2.281	1.2467	21 49.9	1.2792	4 26.3	0.8791	7.570
17	1.6	0.7904	2.288	1.2475	21 50.4	1.2797	4 22.1	0.8760	7.516
18	1.7	0.7931	2.296	1.2484	21 50.9	1.2802	4 17.9	0.8728	7.461
19	1.8	0.7959	2.303	1.2492	21 51.3	1.2807	4 13.7	0.8695	7.404
20	1.8	0.7986	+2.311	1.2501	21 51.8	1.2812	4 9.5	0.8659	+7.344
21	1.9	0.8013	2.319	1.2510	21 52.3	1.2817	4 5.3	0.8623	7.282
22	2.0	0.8041	2.327	1.2518	21 52.8	1.2823	4 1.2	0.8584	7.217
23	2.0	0.8068	2.335	1.2527	21 53.4	1.2829	3 57.0	0.8543	7.150
24	2.1	0.8095	2.343	1.2535	21 53.9	1.2834	3 52.8	0.8501	7.081
25	2.2	0.8123	2.351	1.2544	21 54.4	1.2840	3 48.7	0.8457	7.010
26	2.2	0.8150	+2.359	1.2553	21 54.9	1.2846	3 44.5	0.8412	+6.937
27	2.3	0.8178	2.367	1.2562	21 55.5	1.2852	3 40.4	0.8364	6.861
28	2.4	0.8205	2.375	1.2571	21 56.0	1.2859	3 36.3	0.8314	6.783
29	2.4	0.8232	2.384	1.2581	21 56.5	1.2865	3 32.2	0.8263	6.704
30	2.5	0.8260	2.392	1.2590	21 57.1	1.2871	3 28.1	0.8211	6.623
31	2.6	0.8287	2.401	1.2599	21 57.7	1.2877	3 24.0	0.8155	6.539
Nov. 1	2.6	0.8314	+2.410	1.2609	21 58.2	1.2884	3 19.9	0.8098	+6.453
2	2.7	0.8342	2.418	1.2618	21 58.8	1.2890	3 15.8	0.8038	6.365
3	2.8	0.8369	2.427	1.2628	21 59.4	1.2897	3 11.8	0.7976	6.275
4	2.8	0.8397	2.436	1.2638	21 59.9	1.2903	3 7.7	0.7913	6.184
5	2.9	0.8424	2.445	1.2648	22 0.5	1.2910	3 3.7	0.7846	6.090
6	2.9	0.8451	2.455	1.2658	22 1.1	1.2917	2 59.7	0.7777	5.994
7	3.0	0.8479	+2.464	1.2668	22 1.6	1.2923	2 55.6	0.7706	+5.896
8	3.1	0.8506	2.473	1.2678	22 2.2	1.2930	2 51.6	0.7632	5.797
9	3.1	0.8533	2.483	1.2688	22 2.8	1.2936	2 47.6	0.7556	5.696
10	3.2	0.8561	2.492	1.2699	22 3.4	1.2943	2 43.6	0.7476	5.593
11	3.3	0.8588	2.502	1.2710	22 3.9	1.2949	2 39.6	0.7394	5.488
12	3.3	0.8616	2.511	1.2721	22 4.5	1.2956	2 35.7	0.7309	5.381
13	3.4	0.8643	+2.521	1.2732	22 5.1	1.2962	2 31.7	0.7221	+5.273
14	3.5	0.8670	2.531	1.2743	22 5.7	1.2968	2 27.8	0.7129	5.163
15	3.5	0.8698	2.541	1.2754	22 6.3	1.2975	2 23.8	0.7035	5.052
16	3.6	0.8725	2.552	1.2766	22 6.8	1.2981	2 19.9	0.6936	4.939
17	3.7	0.8753	2.562	1.2777	22 7.4	1.2987	2 16.0	0.6834	4.824
18	3.7	0.8780	2.572	1.2789	22 8.0	1.2993	2 12.1	0.6728	4.708
19	3.8	0.8807	+2.583	1.2800	22 8.5	1.2999	2 8.2	0.6618	+4.590
20	3.9	0.8835	2.593	1.2812	22 9.1	1.3005	2 4.3	0.6504	4.471
21	3.9	0.8862	2.604	1.2824	22 9.7	1.3011	2 0.4	0.6385	4.350
22	4.0	0.8889	2.614	1.2836	22 10.3	1.3016	1 56.5	0.6261	4.228
23	4.1	0.8917	2.625	1.2849	22 10.8	1.3022	1 52.6	0.6133	4.105
24	4.1	0.8944	+2.636	1.2861	22 11.4	1.3027	1 48.8	0.5999	+3.980

Tag	0h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1931.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1931	in 0.ˢ001	in 0.″01				in 0.″01	23° 27′		in 0.″01	in 0.001	
Okt. 14	—12	+ 8	10.ʰ9	+39.″31	—2.″25	—19	2.″86	+9.″51	— 2	76	83
15	— 8	8	8.3	39.45	2.27	—12	2.80	9.50	— 7	77	83
16	— 1	10	6.3	39.59	2.28	— 2	2.76	9.49	—10	77	83
17	+ 6	12	4.7	39.72	2.30	+10	2.73	9.48	—11	77	83
18	+13	12	3.2	39.86	2.31	+21	2.74	9.46	— 9	77	83
19	+17	12	1.9	40.00	2.33	+28	2.76	9.45	— 6	77	83
20	+18	+12	0.4	+40.14	—2.34	+30	2.78	+9.44	— 1	77	83
21	+17	11	23.0	40.27	2.35	+28	2.81	9.42	+ 3	78	83
22	+13	11	21.4	40.41	2.36	+21	2.84	9.41	+ 7	78	83
23	+ 7	10	19.8	40.55	2.37	+12	2.84	9.39	+ 9	78	83
24	+ 1	10	18.1	40.69	2.37	+ 1	2.83	9.37	+10	78	84
25	— 6	10	16.5	40.83	2.38	—10	2.81	9.36	+ 9	78	84
26	—11	+10	14.7	+40.96	—2.38	—19	2.76	+9.34	+ 6	78	84
27	—15	10	13.1	41.10	2.39	—25	2.71	9.33	+ 3	79	84
28	—16	11	11.4	41.24	2.39	—27	2.64	9.31	— 2	79	84
29	—15	11	9.9	41.38	2.39	—24	2.58	9.29	— 6	79	84
30	—11	12	8.5	41.51	2.39	—18	2.53	9.27	— 9	79	84
31	— 5	11	7.2	41.65	2.38	— 9	2.50	9.26	—11	79	84
Nov. 1	+ 1	+10	5.7	+41.79	—2.38	+ 2	2.49	+9.24	—10	79	85
2	+ 7	8	3.9	41.93	2.37	+11	2.49	9.22	— 7	80	85
3	+10	7	1.4	42.06	2.36	+17	2.52	9.20	— 3	80	85
4	+11	8	22.6	42.20	2.36	+18	2.55	9.18	+ 3	80	85
5	+ 8	9	20.3	42.34	2.34	+13	2.58	9.16	+ 7	80	85
6	+ 3	11	18.6	42.48	2.33	+ 4	2.59	9.15	+11	80	85
7	— 4	+11	17.2	+42.61	—2.32	— 6	2.58	+9.13	+11	80	85
8	—10	11	15.7	42.75	2.30	—16	2.54	9.11	+ 9	81	85
9	—13	10	13.9	42.89	2.29	—22	2.47	9.09	+ 5	81	86
10	—14	9	11.7	43.03	2.27	—22	2.40	9.07	— 1	81	86
11	—10	9	9.3	43.16	2.25	—17	2.33	9.05	— 6	81	86
12	— 4	10	7.1	43.30	2.23	— 7	2.27	9.03	— 9	81	86
13	+ 3	+11	5.3	+43.44	—2.20	+ 5	2.24	+9.01	—11	82	86
14	+10	12	3.8	43.58	2.18	+17	2.22	9.00	—10	82	86
15	+16	12	2.3	43.72	2.15	+26	2.24	8.98	— 7	82	86
16	+18	12	0.9	43.85	2.12	+30	2.26	8.96	— 3	82	86
17	+18	12	23.4	43.99	2.09	+29	2.29	8.94	+ 2	82	87
18	+15	11	21.8	44.13	2.06	+24	2.31	8.92	+ 6	83	87
19	+ 9	+11	20.3	+44.27	—2.03	+15	2.32	+8.91	+ 9	83	87
20	+ 3	10	18.7	44.40	1.99	+ 5	2.31	8.89	+10	83	87
21	— 4	10	17.1	44.54	1.96	— 6	2.29	8.87	+ 9	83	87
22	—10	10	15.3	44.68	1.92	—16	2.25	8.85	+ 7	84	87
23	—14	10	13.6	44.82	1.88	—22	2.19	8.83	+ 4	84	87
24	—16	+10	11.8	+44.95	—1.84	—26	2.13	+8.82	0	84	87

Tag	0h Welt-Zeit								
	St.-Zt. Grw.	t	f	log g	G	log h	H	log i	i
1931									
Nov. 24	h 4.1	s 0.8944	s +2.636	1.2861	h m 22 11.4	1.3027	h m 1 48.8	0.5999	" +3.980
25	4.2	0.8972	2.647	1.2874	22 11.9	1.3033	1 44.9	0.5859	3.854
26	4.3	0.8999	2.658	1.2887	22 12.5	1.3038	1 41.1	0.5712	3.726
27	4.3	0.9026	2.669	1.2899	22 13.0	1.3043	1 37.2	0.5561	3.598
28	4.4	0.9054	2.680	1.2912	22 13.6	1.3048	1 33.4	0.5402	3.469
29	4.5	0.9081	2.691	1.2925	22 14.1	1.3053	1 29.6	0.5235	3.338
30	4.5	0.9108	+2.703	1.2939	22 14.6	1.3057	1 25.8	0.5060	+3.206
Dez. 1	4.6	0.9136	2.714	1.2952	22 15.2	1.3062	1 22.0	0.4876	3.073
2	4.7	0.9163	2.726	1.2966	22 15.7	1.3066	1 18.2	0.4682	2.939
3	4.7	0.9191	2.737	1.2979	22 16.2	1.3070	1 14.4	0.4478	2.804
4	4.8	0.9218	2.749	1.2993	22 16.7	1.3074	1 10.6	0.4262	2.668
5	4.9	0.9245	2.761	1.3007	22 17.2	1.3078	1 6.8	0.4033	2.531
6	4.9	0.9273	+2.772	1.3021	22 17.7	1.3081	1 3.0	0.3789	+2.393
7	5.0	0.9300	2.784	1.3035	22 18.2	1.3085	0 59.2	0.3531	2.255
8	5.1	0.9327	2.796	1.3049	22 18.7	1.3088	0 55.5	0.3255	2.116
9	5.1	0.9355	2.808	1.3063	22 19.1	1.3091	0 51.7	0.2958	1.976
10	5.2	0.9382	2.820	1.3078	22 19.6	1.3094	0 47.9	0.2639	1.836
11	5.2	0.9410	2.832	1.3092	22 20.0	1.3096	0 44.2	0.2292	1.695
12	5.3	0.9437	+2.844	1.3107	22 20.5	1.3099	0 40.4	0.1912	+1.553
13	5.4	0.9464	2.856	1.3121	22 20.9	1.3101	0 36.7	0.1495	1.411
14	5.4	0.9492	2.868	1.3136	22 21.4	1.3103	0 32.9	0.1031	1.268
15	5.5	0.9519	2.880	1.3150	22 21.8	1.3105	0 29.2	0.0512	1.125
16	5.6	0.9547	2.892	1.3165	22 22.2	1.3106	0 25.4	9.9921	0.982
17	5.6	0.9574	2.905	1.3180	22 22.6	1.3108	0 21.7	9.9232	0.838
18	5.7	0.9601	+2.917	1.3195	22 23.0	1.3109	0 17.9	9.8414	+0.694
19	5.8	0.9629	2.929	1.3210	22 23.4	1.3110	0 14.2	9.7404	0.550
20	5.8	0.9656	2.941	1.3225	22 23.8	1.3110	0 10.5	9.6085	0.406
21	5.9	0.9683	2.953	1.3240	22 24.1	1.3111	0 6.7	9.4166	0.261
22	6.0	0.9711	2.966	1.3255	22 24.5	1.3111	0 3.0	9.0645	+0.116
23	6.0	0.9738	2.978	1.3270	22 24.8	1.3111	23 59.2	8.4624_n	—0.029
24	6.1	0.9766	+2.990	1.3285	22 25.2	1.3111	23 55.5	9.2380_n	—0.173
25	6.2	0.9793	3.002	1.3300	22 25.5	1.3111	23 51.8	9.5024_n	0.318
26	6.2	0.9820	3.015	1.3315	22 25.9	1.3110	23 48.0	9.6656_n	0.463
27	6.3	0.9848	3.027	1.3330	22 26.2	1.3109	23 44.3	9.7839_n	0.608
28	6.4	0.9875	3.039	1.3345	22 26.5	1.3108	23 40.5	9.8762_n	0.752
29	6.4	0.9902	3.051	1.3360	22 26.8	1.3107	23 36.8	9.9523_n	0.896
30	6.5	0.9930	+3.064	1.3375	22 27.0	1.3106	23 33.1	0.0170_n	—1.040
31	6.6	0.9957	3.076	1.3390	22 27.3	1.3104	23 29.3	0.0734_n	1.184
32	6.6	0.9985	+3.088	1.3404	22 27.6	1.3102	23 25.6	0.1229_n	—1.327

Tag	0h Welt-Zeit										
	f'	g'	G'	Allgemeine Präzession seit 1931.0	$\Delta\psi$	$\Delta\psi'$	Wahre Schiefe	$\Delta\varepsilon$	$\Delta\varepsilon'$	j	k
1931	s in 0.001	" in 0.01				" in 0.01	23° 27'		" in 0.01	in 0.001	
Nov. 24	−16	+10	h 11.8	" +44.95	" −1.84	−26	" 2.13	" +8.82	0	84	87
25	−15	11	10.3	45.09	1.80	−25	2.07	8.80	− 5	84	88
26	−12	11	8.8	45.23	1.76	−19	2.02	8.79	− 8	85	88
27	− 6	11	7.5	45.37	1.71	−10	1.98	8.77	−10	85	88
28	0	10	6.0	45.50	1.67	0	1.97	8.76	−10	85	88
29	+ 6	9	4.3	45.64	1.62	+10	1.97	8.74	− 8	85	88
30	+10	+ 8	2.1	+45.78	−1.57	+17	2.00	+8.73	− 4	86	88
Dez. 1	+12	8	23.5	45.92	1.52	+19	2.04	8.72	+ 1	86	88
2	+10	9	21.1	46.05	1.47	+16	2.07	8.70	+ 6	86	88
3	+ 5	10	19.2	46.19	1.42	+ 8	2.09	8.69	+10	86	88
4	− 2	11	17.6	46.33	1.37	− 3	2.10	8.68	+11	87	88
5	− 8	11	16.1	46.47	1.32	−13	2.07	8.67	+10	87	88
6	−13	+11	14.5	+46.60	−1.26	−21	2.02	+8.65	+ 6	87	88
7	−15	10	12.5	46.74	1.21	−24	1.96	8.64	+ 1	88	89
8	−13	9	10.2	46.88	1.15	−21	1.89	8.63	− 4	88	89
9	− 8	10	8.0	47.02	1.09	−12	1.84	8.62	− 8	88	89
10	0	11	6.1	47.16	1.03	0	1.81	8.62	−11	88	89
11	+ 7	12	4.4	47.29	0.97	+12	1.80	8.61	−11	89	89
12	+13	+12	2.9	+47.43	−0.92	+22	1.81	+8.60	− 8	89	89
13	+17	12	1.4	47.57	0.86	+28	1.84	8.59	− 4	89	89
14	+18	12	23.9	47.71	0.80	+29	1.88	8.59	0	90	89
15	+16	11	22.3	47.84	0.73	+26	1.92	8.58	+ 5	90	89
16	+11	11	20.7	47.98	0.67	+18	1.95	8.58	+ 8	90	89
17	+ 5	10	19.2	48.12	0.61	+ 8	1.96	8.57	+10	91	89
18	− 2	+10	17.5	+48.26	−0.55	− 3	1.96	+8.57	+10	91	89
19	− 8	10	15.8	48.39	0.49	−13	1.93	8.57	+ 8	91	89
20	−13	10	14.1	48.53	0.42	−21	1.90	8.57	+ 5	91	89
21	−15	10	12.3	48.67	0.36	−25	1.86	8.56	+ 1	92	89
22	−15	11	10.7	48.81	0.30	−25	1.81	8.56	− 3	92	89
23	−13	11	9.3	48.94	0.23	−21	1.77	8.56	− 7	92	89
24	− 8	+11	7.8	+49.08	−0.17	−13	1.74	+8.56	−10	93	89
25	− 2	11	6.4	49.22	0.11	− 3	1.74	8.56	−11	93	89
26	+ 5	10	4.8	49.36	−0.04	+ 8	1.75	8.57	− 9	93	89
27	+10	8	2.7	49.49	+0.02	+16	1.79	8.57	− 6	94	89
28	+12	8	0.3	49.63	0.08	+20	1.84	8.57	− 1	94	89
29	+12	9	21.9	49.77	0.14	+19	1.90	8.58	+ 5	94	89
30	+ 8	+10	20.0	+49.91	+0.21	+13	1.94	+8.58	+ 9	95	89
31	+ 2	11	18.3	50.04	0.27	+ 3	1.97	8.59	+11	95	89
32	− 5	+11	16.8	+50.18	+0.33	− 9	1.97	+8.59	+11	95	89

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Welt-Zeit	t	A		A′	B		B′	C		D	
1931	s			in 0.00001	″		in 0.001	″		″	
Jan. 0.225	−0.0030	−0.10770	392	−608	−8.074	9	− 3	− 2.885	328	+20.227	59
1.223	−0.0003	0.10378	390	−572	8.083	10	+ 45	3.213	327	20.168	65
2.220	+0.0025	0.09988	389	−430	8.093	10	+ 84	3.540	327	20.103	72
3.217	0.0052	0.09599	387	−212	8.103	11	+108	3.867	325	20.031	78
4.214	0.0079	0.09212	387	+ 47	8.114	12	+107	4.192	324	19.953	84
5.212	0.0106	0.08825	386	+284	8.126	12	+ 81	4.516	323	19.869	91
6.209	0.0134	−0.08439	384	+447	−8.138	13	+ 36	− 4.839	321	+19.778	96
7.206	0.0161	0.08055	382	+501	8.151	14	− 16	5.160	320	19.682	103
8.203	0.0188	0.07673	380	+434	8.165	14	− 69	5.480	318	19.579	109
9.201	0.0216	0.07293	378	+270	8.179	15	−102	5.798	315	19.470	114
10.198	0.0243	0.06915	377	+ 56	8.194	15	−111	6.113	314	19.356	121
11.195	0.0270	0.06538	375	−153	8.209	15	− 95	6.427	312	19.235	128
12.192	0.0298	−0.06163	372	−301	−8.224	16	− 57	− 6.739	310	+19.107	133
13.190	0.0325	0.05791	370	−358	8.240	17	− 7	7.049	308	18.974	140
14.187	0.0352	0.05421	368	−310	8.257	17	+ 42	7.357	305	18.834	145
15.184	0.0380	0.05053	365	−175	8.274	18	+ 81	7.662	302	18.689	151
16.182	0.0407	0.04688	363	+ 10	8.292	18	+103	7.964	300	18.538	156
17.179	0.0434	0.04325	360	+201	8.310	18	+101	8.264	298	18.382	163
18.176	0.0461	−0.03965	358	+362	−8.328	18	+ 82	− 8.562	295	+18.219	168
19.173	0.0489	0.03607	355	+460	8.346	19	+ 48	8.857	291	18.051	174
20.171	0.0516	0.03252	352	+482	8.365	19	+ 6	9.148	289	17.877	180
21.168	0.0543	0.02900	349	+423	8.384	20	− 35	9.437	287	17.697	185
22.165	0.0571	0.02551	347	+291	8.404	20	− 71	9.724	283	17.512	191
23.162	0.0598	0.02204	343	+107	8.424	21	− 94	10.007	280	17.321	195
24.160	0.0625	−0.01861	341	−109	−8.445	21	−101	−10.287	276	+17.126	201
25.157	0.0653	0.01520	338	−321	8.466	21	− 91	10.563	273	16.925	206
26.154	0.0680	0.01182	334	−501	8.487	21	− 63	10.836	270	16.719	212
27.152	0.0707	0.00848	331	−606	8.508	21	− 22	11.106	266	16.507	217
28.149	0.0734	0.00517	329	−616	8.529	22	+ 26	11.372	262	16.290	222
29.146	0.0762	−0.00188	326	−524	8.551	21	+ 71	11.634	259	16.068	226
30.143	0.0789	+0.00138	322	−336	−8.572	22	+102	−11.893	255	+15.842	232
31.141	0.0816	0.00460	319	− 92	8.594	22	+111	12.148	251	15.610	236
Febr. 1.138	0.0844	0.00779	316	+156	8.616	22	+ 95	12.399	247	15.374	241
2.135	0.0871	0.01095	313	+357	8.638	22	+ 57	12.646	243	15.133	246
3.132	0.0898	0.01408	310	+464	8.660	23	+ 6	12.889	239	14.887	250
4.130	0.0926	0.01718	307	+454	8.683	22	− 48	13.128	235	14.637	255
5.127	0.0953	+0.02025	303	+333	−8.705	21	− 90	−13.363	231	+14.382	259
6.124	0.0980	0.02328	300	+141	8.726	22	−111	13.594	226	14.123	264
7.121	0.1008	0.02628	297	− 67	8.748	22	−104	13.820	222	13.859	267
8.119	0.1035	0.02925	294	−238	8.770	21	− 75	14.042	218	13.592	272
9.116	0.1062	0.03219	290	−328	8.791	21	− 29	14.260	213	13.320	276
10.113	0.1089	+0.03509		−316	−8.812		+ 23	−14.473		+13.044	

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Welt-Zeit	t	A	Δ	A'	B	Δ	B'	C	Δ	D	Δ
1931	s			in 0.00001	"		in 0.001 "	"		"	
Febr. 10.113	0.1089	+0.03509	287	−316	−8.812	22	+ 23	−14.473	209	+13.044	281
11.111	0.1117	0.03796	285	−212	8.834	21	+ 68	14.682	203	12.763	284
12.108	0.1144	0.04081	282	− 39	8.855	21	+ 96	14.885	199	12.479	287
13.105	0.1171	0.04363	278	+154	8.876	21	+105	15.084	194	12.192	290
14.102	0.1199	0.04641	275	+331	8.897	21	+ 92	15.278	190	11.902	295
15.100	0.1226	0.04916	273	+455	8.918	21	+ 62	15.468	185	11.607	298
16.097	0.1253	+0.05189	269	+504	−8.939	20	+ 23	−15.653	180	+11.309	302
17.094	0.1281	0.05458	267	+472	8.959	19	− 18	15.833	175	11.007	305
18.091	0.1308	0.05725	264	+364	8.978	20	− 59	16.008	170	10.702	308
19.089	0.1335	0.05989	261	+197	8.998	19	− 87	16.178	165	10.394	311
20.086	0.1362	0.06250	258	− 12	9.017	18	−101	16.343	160	10.083	314
21.083	0.1390	0.06508	256	−228	9.035	18	− 97	16.503	154	9.769	317
22.081	0.1417	+0.06764	253	−426	−9.053	18	− 74	−16.657	150	+ 9.452	319
23.078	0.1444	0.07017	250	−565	9.071	18	− 37	16.807	144	9.133	322
24.075	0.1472	0.07267	248	−619	9.089	18	+ 8	16.951	139	8.811	325
25.072	0.1499	0.07515	246	−575	9.107	17	+ 54	17.090	133	8.486	327
26.070	0.1526	0.07761	244	−432	9.124	16	+ 91	17.223	129	8.159	330
27.067	0.1554	0.08005	241	−217	9.140	16	+109	17.352	123	7.829	332
28.064	0.1581	+0.08246	239	+ 29	−9.156	15	+103	−17.475	118	+ 7.497	334
März 1.061	0.1608	0.08485	238	+249	9.171	15	+ 73	17.593	111	7.163	336
2.059	0.1636	0.08723	236	+393	9.186	14	+ 25	17.704	106	6.827	337
3.056	0.1663	0.08959	233	+430	9.200	13	− 29	17.810	102	6.490	340
4.053	0.1690	0.09192	231	+353	9.213	13	− 77	17.912	96	6.150	342
5.050	0.1717	0.09423	230	+189	9.226	12	−107	18.008	90	5.808	343
6.048	0.1745	+0.09653	228	− 12	−9.238	12	−112	−18.098	84	+ 5.465	344
7.045	0.1772	0.09881	227	−197	9.250	11	− 89	18.182	79	5.121	346
8.042	0.1799	0.10108	225	−313	9.261	11	− 48	18.261	74	4.775	348
9.040	0.1827	0.10333	224	−334	9.272	10	+ 4	18.335	68	4.427	348
10.037	0.1854	0.10557	223	−253	9.282	9	+ 53	18.403	62	4.079	349
11.034	0.1881	0.10780	221	− 97	9.291	9	+ 90	18.465	57	3.730	350
12.031	0.1909	+0.11001	221	+102	−9.300	8	+107	−18.522	51	+ 3.380	351
13.029	0.1936	0.11222	220	+296	9.308	8	+101	18.573	46	3.029	352
14.026	0.1963	0.11442	219	+444	9.316	7	+ 77	18.619	39	2.677	352
15.023	0.1990	0.11661	219	+522	9.323	6	+ 40	18.658	34	2.325	353
16.020	0.2018	0.11880	218	+519	9.329	6	− 3	18.692	29	1.972	353
17.018	0.2045	0.12098	218	+437	9.335	5	− 44	18.721	22	1.619	354
18.015	0.2072	+0.12316	218	+286	−9.340	4	− 76	−18.743	18	+ 1.265	354
19.012	0.2100	0.12534	217	+ 90	9.344	3	− 97	18.761	11	0.911	354
20.010	0.2127	0.12751	217	−126	9.347	3	−100	18.772	7	0.557	354
21.007	0.2154	0.12968	217	−333	9.350	2	− 85	18.779	0	+ 0.203	354
22.004	0.2182	0.13185	217	−496	9.352	1	− 53	18.779	5	− 0.151	353
23.001	0.2209	+0.13402		−586	−9.353		− 10	−18.774		− 0.504	

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Welt-Zeit	t	A	Δ	A'	B	Δ	B'	C	Δ	D	Δ
1931	s			in 0.00001	"		in 0.001 "	"		"	
März 23.001	0.2209	+0.13402	216	—586	—9.353	1	— 10	—18.774	11	— 0.504	353
23.999	0.2236	0.13618	217	—585	9.354	0	+ 36	18.763	16	0.857	353
24.996	0.2264	0.13835	217	—483	9.354	1	+ 78	18.747	22	1.210	352
25.993	0.2291	0.14052	218	—300	9.353	1	+105	18.725	28	1.562	351
26.990	0.2318	0.14270	219	— 69	9.352	2	+108	18.697	33	1.913	351
27.988	0.2345	0.14489	220	+156	9.350	3	+ 87	18.664	39	2.264	350
28.985	0.2373	+0.14709	220	+326	—9.347	3	+ 45	—18.625	44	— 2.614	349
29.982	0.2400	0.14929	221	+400	9.344	3	— 6	18.581	49	2.963	348
30.980	0.2427	0.15150	222	+360	9.341	4	— 60	18.532	55	3.311	346
31.977	0.2455	0.15372	223	+224	9.337	5	— 97	18.477	61	3.657	346
April 1.974	0.2482	0.15595	224	+ 26	9.332	5	—112	18.416	65	4.003	344
2.971	0.2509	0.15819	225	—169	9.327	6	—101	18.351	71	4.347	342
3.969	0.2537	+0.16044	227	—315	—9.321	7	— 66	—18.280	76	— 4.689	340
4.966	0.2564	0.16271	228	—369	9.314	7	— 16	18.204	82	5.029	339
5.963	0.2591	0.16499	230	—320	9.307	8	+ 35	18.122	87	5.368	338
6.960	0.2618	0.16729	231	—178	9.299	9	+ 77	18.035	93	5.706	336
7.958	0.2646	0.16960	233	+ 20	9.290	9	+102	17.942	97	6.042	333
8.955	0.2673	0.17193	235	+228	9.281	9	+105	17.845	103	6.375	332
9.952	0.2700	+0.17428	236	+406	—9.272	10	+ 87	—17.742	107	— 6.707	330
10.949	0.2728	0.17664	238	+519	9.262	10	+ 54	17.635	112	7.037	327
11.947	0.2755	0.17902	241	+549	9.252	11	+ 11	17.523	118	7.364	324
12.944	0.2782	0.18143	242	+495	9.241	11	— 31	17.405	123	7.688	322
13.941	0.2810	0.18385	245	+366	9.230	12	— 68	17.282	128	8.010	320
14.939	0.2837	0.18630	247	+185	9.218	12	— 92	17.154	133	8.330	318
15.936	0.2864	+0.18877	248	— 26	—9.206	13	—101	—17.021	137	— 8.648	315
16.933	0.2892	0.19125	251	—237	9.193	12	— 92	16.884	143	8.963	312
17.930	0.2919	0.19376	253	—417	9.181	13	— 66	16.741	147	9.275	309
18.928	0.2946	0.19629	255	—535	9.168	13	— 26	16.594	152	9.584	306
19.925	0.2973	0.19884	258	—567	9.155	14	+ 19	16.442	157	9.890	302
20.922	0.3001	0.20142	261	—503	9.141	14	+ 63	16.285	161	10.192	300
21.919	0.3028	+0.20403	263	—351	—9.127	15	+ 96	—16.124	165	—10.492	297
22.917	0.3055	0.20666	266	—138	9.112	15	+108	15.959	170	10.789	294
23.914	0.3083	0.20932	268	+ 90	9.097	15	+ 99	15.789	174	11.083	290
24.911	0.3110	0.21200	271	+279	9.082	15	+ 65	15.615	180	11.373	287
25.909	0.3137	0.21471	274	+387	9.067	16	+ 17	15.435	183	11.660	283
26.906	0.3165	0.21745	276	+384	9.051	15	— 38	15.252	187	11.943	280
27.903	0.3192	+0.22021	279	+275	—9.036	16	— 83	—15.065	192	—12.223	276
28.900	0.3219	0.22300	281	+ 87	9.020	15	—109	14.873	196	12.499	272
29.898	0.3246	0.22581	285	—123	9.005	16	—109	14.677	201	12.771	269
30.895	0.3274	0.22866	287	—302	8.989	16	— 83	14.476	204	13.040	264
Mai 1.892	0.3301	0.23153	290	—400	8.973	17	— 39	14.272	208	13.304	260
2.889	0.3328	+0.23443		—389	—8.956		+ 14	—14.064		—13.564	

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Welt-Zeit		t	A		A'	B		B'	C		D	
1931		h			in 0.00001	″		in 0.″01	″		″	
Mai	2.889	0.3328	+0.23443	293	−389	−8.956	16	+ 14	−14.064	212	−13.564	257
	3.887	0.3356	0.23736	295	−278	8.940	17	+ 62	13.852	215	13.821	253
	4.884	0.3383	0.24031	298	− 91	8.923	16	+ 96	13.637	220	14.074	249
	5.881	0.3410	0.24329	302	+128	8.907	17	+107	13.417	224	14.323	244
	6.879	0.3438	0.24631	304	+331	8.890	16	+ 97	13.193	227	14.567	240
	7.876	0.3465	0.24935	307	+480	8.874	16	+ 67	12.966	230	14.807	236
	8.873	0.3492	+0.25242	309	+549	−8.858	17	+ 28	−12.736	234	−15.043	231
	9.870	0.3520	0.25551	311	+528	8.841	16	− 16	12.502	237	15.274	228
	10.868	0.3547	0.25862	314	+428	8.825	17	− 56	12.265	241	15.502	222
	11.865	0.3574	0.26176	317	+263	8.808	16	− 84	12.024	245	15.724	218
	12.862	0.3601	0.26493	320	+ 59	8.792	15	−100	11.779	247	15.942	214
	13.859	0.3629	0.26813	323	−154	8.777	15	− 98	11.532	250	16.156	209
	14.857	0.3656	+0.27136	325	−348	−8.762	15	− 78	−11.282	253	−16.365	203
	15.854	0.3683	0.27461	327	−490	8.747	15	− 43	11.029	256	16.568	199
	16.851	0.3711	0.27788	331	−551	8.732	15	+ 1	10.773	260	16.767	195
	17.848	0.3738	0.28119	334	−521	8.717	15	+ 47	10.513	263	16.962	189
	18.846	0.3765	0.28453	335	−397	8.702	14	+ 85	10.250	265	17.151	185
	19.843	0.3793	0.28788	337	−202	8.688	14	+107	9.985	267	17.336	180
	20.840	0.3820	+0.29125	340	+ 28	−8.674	14	+107	− 9.718	271	−17.516	175
	21.838	0.3847	0.29465	342	+242	8.660	14	+ 81	9.447	273	17.691	170
	22.835	0.3874	0.29807	345	+385	8.646	14	+ 37	9.174	276	17.861	165
	23.832	0.3902	0.30152	347	+423	8.632	13	− 17	8.898	277	18.026	159
	24.829	0.3929	0.30499	349	+350	8.619	13	− 67	8.621	280	18.185	155
	25.827	0.3956	0.30848	351	+180	8.606	13	−102	8.341	282	18.340	150
	26.824	0.3984	+0.31199	353	− 37	−8.593	12	−113	− 8.059	285	−18.490	144
	27.821	0.4011	0.31552	356	−244	8.581	11	− 97	7.774	286	18.634	139
	28.818	0.4038	0.31908	358	−387	8.570	11	− 58	7.488	288	18.773	133
	29.816	0.4066	0.32266	359	−430	8.559	11	− 7	7.200	291	18.906	128
	30.813	0.4093	0.32625	361	−360	8.548	10	+ 44	6.909	293	19.034	123
	31.810	0.4120	0.32986	362	−198	8.538	10	+ 85	6.616	294	19.157	118
Juni	1.808	0.4148	+0.33348	364	+ 16	−8.528	9	+105	− 6.322	295	−19.275	112
	2.805	0.4175	0.33712	366	+235	8.519	8	+102	6.027	297	19.387	107
	3.802	0.4202	0.34078	367	+414	8.511	9	+ 81	5.730	299	19.494	101
	4.799	0.4229	0.34445	369	+520	8.502	8	+ 44	5.431	300	19.595	96
	5.797	0.4257	0.34814	370	+538	8.494	8	+ 1	5.131	302	19.691	90
	6.794	0.4284	0.35184	371	+468	8.486	7	− 42	4.829	303	19.781	85
	7.791	0.4311	+0.35555	372	+325	−8.479	6	− 76	− 4.526	304	−19.866	80
	8.788	0.4339	0.35927	374	+132	8.473	5	− 96	4.222	305	19.946	74
	9.786	0.4366	0.36301	375	− 82	8.468	6	−100	3.917	307	20.020	69
	10.783	0.4393	0.36676	376	−286	8.462	5	− 86	3.610	307	20.089	62
	11.780	0.4421	0.37052	377	−448	8.457	5	− 58	3.303	308	20.151	57
	12.777	0.4448	+0.37429		−544	−8.452		− 16	− 2.995		−20.208	

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für 12ʰ Sternzeit Greenwich

Welt-Zeit	t	A	Δ	A'	B	Δ	B'	C	Δ	D	Δ
1931	h			in 0.00001	″		in 0.001	″		″	
Juni 12.777	0.4448	+0.37429	377	—544	—8.452	4	— 16	—2.995	308	—20.208	52
13.775	0.4475	0.37806	378	—548	8.448	3	+ 30	2.687	309	20.260	46
14.772	0.4502	0.38184	379	—457	8.445	2	+ 72	2.378	310	20.306	40
15.769	0.4530	0.38563	379	—281	8.443	2	+101	2.068	310	20.346	35
16.767	0.4557	0.38942	380	— 54	8.441	1	+109	1.758	311	20.381	29
17.764	0.4584	0.39322	380	+177	8.440	1	+ 94	1.447	312	20.410	23
18.761	0.4612	+0.39702	381	+356	—8.439	0	+ 56	—1.135	311	—20.433	18
19.758	0.4639	0.40083	380	+446	8.439	0	+ 5	0.824	312	20.451	12
20.756	0.4666	0.40463	381	+420	8.439	1	— 48	0.512	312	20.463	6
21.753	0.4694	0.40844	380	+288	8.440	1	— 90	—0.200	312	20.469	1
22.750	0.4721	0.41224	381	+ 81	8.441	2	—111	+0.112	312	20.470	5
23.747	0.4748	0.41605	380	—142	8.443	3	—106	0.424	311	20.465	11
24.745	0.4776	+0.41985	380	—323	—8.446	3	— 77	+0.735	311	—20.454	15
25.742	0.4803	0.42365	380	—419	8.449	4	— 29	1.046	311	20.439	22
26.739	0.4830	0.42745	379	—399	8.453	5	+ 24	1.357	311	20.417	28
27.737	0.4857	0.43124	379	—278	8.458	5	+ 71	1.668	310	20.389	32
28.734	0.4885	0.43503	379	— 81	8.463	5	+101	1.978	310	20.357	39
29.731	0.4912	0.43882	378	+140	8.468	6	+107	2.288	310	20.318	44
30.728	0.4939	+0.44260	377	+341	—8.474	7	+ 93	+2.598	308	—20.274	50
Juli 1.726	0.4967	0.44637	376	+480	8.481	7	+ 60	2.906	307	20.224	55
2.723	0.4994	0.45013	375	+533	8.488	8	+ 17	3.213	307	20.169	62
3.720	0.5022	0.45388	374	+495	8.496	8	— 26	3.520	305	20.107	66
4.717	0.5049	0.45762	373	+378	8.504	9	— 65	3.825	305	20.041	72
5.715	0.5076	0.46135	372	+201	8.513	9	— 92	4.130	303	19.969	77
6.712	0.5103	+0.46507	371	— 10	—8.522	10	—101	+4.433	302	—19.892	83
7.709	0.5130	0.46878	370	—222	8.532	10	— 93	4.735	301	19.809	88
8.707	0.5158	0.47248	368	—406	8.542	10	— 70	5.036	300	19.721	94
9.704	0.5185	0.47616	367	—531	8.552	11	— 32	5.336	298	19.627	100
10.701	0.5212	0.47983	365	—572	8.563	12	+ 13	5.634	296	19.527	105
11.698	0.5240	0.48348	364	—520	8.575	13	+ 57	5.930	295	19.422	110
12.696	0.5267	+0.48712	361	—376	—8.588	13	+ 92	+6.225	293	—19.312	115
13.693	0.5294	0.49073	360	—164	8.601	13	+109	6.518	292	19.197	121
14.690	0.5322	0.49433	358	+ 73	8.614	13	+102	6.810	290	19.076	125
15.687	0.5349	0.49791	356	+285	8.627	14	+ 73	7.100	287	18.951	131
16.685	0.5376	0.50147	355	+424	8.641	14	+ 27	7.387	286	18.820	136
17.682	0.5404	0.50502	353	+451	8.655	15	— 27	7.673	283	18.684	142
18.679	0.5431	+0.50855	350	+366	—8.670	16	— 76	+7.956	281	—18.542	147
19.676	0.5458	0.51205	348	+191	8.686	15	—106	8.237	279	18.395	152
20.674	0.5485	0.51553	346	— 28	8.701	16	—112	8.516	278	18.243	156
21.671	0.5513	0.51899	344	—231	8.717	15	— 90	8.794	274	18.087	162
22.668	0.5540	0.52243	342	—365	8.732	16	— 49	9.068	272	17.925	166
23.666	0.5567	+0.52585		—396	—8.748		+ 5	+9.340		—17.759	

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Welt-Zeit		t	A		A'	B		B'	C		D	
1931					in 0.00001			in 0.″001				
Juli	23.666	0.5567	+0.52585	340	—396	—8.″748	17	+ 5	+ 9.″340	269	—17.″759	172
	24.663	0.5595	0.52925	337	—316	8.765	17	+ 55	9.609	267	17.587	176
	25.660	0.5622	0.53262	335	—147	8.782	17	+ 91	9.876	265	17.411	182
	26.657	0.5649	0.53597	333	+ 66	8.799	18	+109	10.141	261	17.229	186
	27.655	0.5677	0.53930	330	+277	8.817	18	+101	10.402	259	17.043	191
	28.652	0.5704	0.54260	327	+440	8.835	18	+ 74	10.661	256	16.852	195
	29.649	0.5731	+0.54587	325	+526	—8.853	18	+ 35	+10.917	252	—16.657	201
	30.646	0.5758	0.54912	322	+522	8.871	18	— 10	11.169	250	16.456	205
	31.644	0.5786	0.55234	320	+431	8.889	18	— 52	11.419	247	16.251	210
Aug.	1.641	0.5813	0.55554	317	+274	8.907	18	— 84	11.666	243	16.041	214
	2.638	0.5840	0.55871	315	+ 71	8.925	19	— 99	11.909	240	15.827	218
	3.636	0.5868	0.56186	312	—144	8.944	19	— 98	12.149	237	15.609	223
	4.633	0.5895	+0.56498	309	—343	—8.963	19	— 81	+12.386	234	—15.386	227
	5.630	0.5922	0.56807	307	—497	8.982	19	— 49	12.620	230	15.159	232
	6.627	0.5950	0.57114	304	—578	9.001	19	— 6	12.850	227	14.927	236
	7.625	0.5977	0.57418	301	—568	9.020	19	+ 40	13.077	223	14.691	240
	8.622	0.6004	0.57719	298	—464	9.039	19	+ 80	13.300	220	14.451	244
	9.619	0.6032	0.58017	296	—282	9.058	18	+104	13.520	215	14.207	247
	10.616	0.6059	+0.58313	293	— 53	—9.076	19	+107	+13.735	212	—13.960	252
	11.614	0.6086	0.58606	290	+174	9.095	19	+ 85	13.947	208	13.708	256
	12.611	0.6113	0.58896	288	+345	9.114	19	+ 46	14.155	204	13.452	260
	13.608	0.6141	0.59184	285	+424	9.133	19	— 5	14.359	200	13.192	264
	14.606	0.6168	0.59469	282	+393	9.152	19	— 57	14.559	197	12.928	267
	15.603	0.6195	0.59751	280	+260	9.171	19	— 97	14.756	193	12.661	270
	16.600	0.6223	+0.60031	277	+ 60	—9.190	18	—113	+14.949	188	—12.391	274
	17.597	0.6250	0.60308	275	—146	9.208	18	—102	15.137	183	12.117	278
	18.595	0.6277	0.60583	272	—307	9.226	18	— 67	15.320	180	11.839	282
	19.592	0.6305	0.60855	270	—374	9.244	18	— 19	15.500	176	11.557	285
	20.589	0.6332	0.61125	267	—333	9.262	17	+ 36	15.676	171	11.272	288
	21.586	0.6359	0.61392	264	—197	9.279	17	+ 80	15.847	167	10.984	291
	22.584	0.6386	+0.61656	262	+ 7	—9.296	17	+106	+16.014	162	—10.693	295
	23.581	0.6414	0.61918	260	+226	9.313	16	+108	16.176	158	10.398	297
	24.578	0.6441	0.62178	257	+409	9.329	17	+ 88	16.334	153	10.101	300
	25.575	0.6468	0.62435	255	+528	9.346	17	+ 51	16.487	149	9.801	303
	26.573	0.6496	0.62690	253	+554	9.363	16	+ 7	16.636	144	9.498	306
	27.570	0.6523	0.62943	250	+492	9.379	16	— 36	16.780	140	9.192	309
	28.567	0.6550	+0.63193	248	+353	—9.395	15	— 74	+16.920	134	— 8.883	312
	29.565	0.6578	0.63441	247	+162	9.410	15	— 96	17.054	129	8.571	314
	30.562	0.6605	0.63688	244	— 53	9.425	14	—100	17.183	125	8.257	317
	31.559	0.6632	0.63932	242	—261	9.439	13	— 88	17.308	120	7.940	318
Sept.	1.556	0.6660	0.64174	240	—436	9.452	13	— 61	17.428	116	7.622	321
	2.554	0.6687	+0.64414		—549	—9.465		— 20	+17.544		— 7.301	

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Welt-Zeit	t	A		A'	B		B'	C		D	
1931	"			in 0.00001	"		in 0.001 "	"		"	
Sept. 2.554	0.6687	+0.64414	238	−549	−9.465	13	− 20	+17.544	110	−7.301	324
3.551	0.6714	0.64652	236	−579	9.478	12	+ 24	17.654	106	6.977	325
4.548	0.6741	0.64888	234	−515	9.490	12	+ 66	17.760	100	6.652	327
5.545	0.6769	0.65122	233	−370	9.502	11	+ 97	17.860	96	6.325	330
6.543	0.6796	0.65355	231	−165	9.513	11	+107	17.956	90	5.995	332
7.540	0.6823	0.65586	230	+ 58	9.524	10	+ 96	18.046	85	5.663	333
8.537	0.6851	+0.65816	228	+250	−9.534	10	+ 64	+18.131	80	−5.330	335
9.535	0.6878	0.66044	227	+366	9.544	10	+ 14	18.211	75	4.995	337
10.532	0.6905	0.66271	227	+378	9.554	9	− 39	18.286	70	4.658	338
11.529	0.6933	0.66498	225	+284	9.563	8	− 83	18.356	65	4.320	339
12.526	0.6960	0.66723	224	+111	9.571	7	−109	18.421	59	3.981	341
13.524	0.6987	0.66947	223	− 93	9.578	7	−110	18.480	54	3.640	342
14.521	0.7014	+0.67170	221	−271	−9.585	6	− 83	+18.534	49	−3.298	343
15.518	0.7042	0.67391	220	−369	9.591	6	− 39	18.583	43	2.955	344
16.515	0.7069	0.67611	220	−364	9.597	6	+ 15	18.626	39	2.611	346
17.513	0.7096	0.67831	220	−252	9.603	5	+ 65	18.665	32	2.265	346
18.510	0.7124	0.68051	219	− 63	9.608	4	+ 98	18.697	27	1.919	347
19.507	0.7151	0.68270	219	+163	9.612	3	+108	18.724	21	1.572	347
20.504	0.7178	+0.68489	218	+370	−9.615	2	+ 97	+18.745	17	−1.225	348
21.502	0.7206	0.68707	218	+520	9.617	2	+ 65	18.762	11	0.877	348
22.499	0.7233	0.68925	218	+580	9.619	1	+ 23	18.773	6	0.529	349
23.496	0.7260	0.69143	218	+552	9.620	1	− 22	18.779	1	−0.180	349
24.494	0.7287	0.69361	217	+436	9.621	0	− 61	18.778	5	+0.169	349
25.491	0.7315	0.69578	218	+259	9.621	1	− 89	18.773	11	0.518	349
26.488	0.7342	+0.69796	218	+ 48	−9.620	1	−101	+18.762	16	+0.867	349
27.485	0.7369	0.70014	218	−165	9.619	2	− 94	18.746	22	1.216	349
28.483	0.7397	0.70232	219	−357	9.617	2	− 72	18.724	27	1.565	349
29.480	0.7424	0.70451	219	−493	9.615	3	− 38	18.697	32	1.914	348
30.477	0.7451	0.70670	220	−556	9.612	4	+ 7	18.665	39	2.262	348
Okt. 1.474	0.7479	0.70890	221	−532	9.608	4	+ 50	18.626	43	2.610	347
2.472	0.7506	+0.71111	222	−419	−9.604	5	+ 86	+18.583	50	+2.957	347
3.469	0.7533	0.71333	223	−241	9.599	5	+106	18.533	55	3.304	345
4.466	0.7561	0.71556	223	− 29	9.594	6	+104	18.478	60	3.649	345
5.464	0.7588	0.71779	225	+172	9.588	7	+ 79	18.418	65	3.994	344
6.461	0.7615	0.72004	227	+313	9.581	7	+ 35	18.353	71	4.338	343
7.458	0.7642	0.72231	228	+358	9.574	8	− 17	18.282	77	4.681	342
8.455	0.7670	+0.72459	229	+299	−9.566	8	− 67	+18.205	82	+5.023	340
9.453	0.7697	0.72688	230	+147	9.558	9	−102	18.123	87	5.363	339
10.450	0.7724	0.72918	232	− 52	9.549	10	−113	18.036	92	5.702	338
11.447	0.7752	0.73150	233	−249	9.539	10	− 97	17.944	99	6.040	336
12.444	0.7779	0.73383	236	−379	9.529	11	− 58	17.845	104	6.376	334
13.442	0.7806	+0.73619		−413	−9.518		− 6	+17.741		+6.710	

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Welt-Zeit	t	A	Δ	A′	B	Δ	B′	C	Δ	D	Δ
1931	h			in 0.00001	″		in 0.001	″		″	
Okt. 13.442	0.7806	+0.73619	237	−413	−9.518	11	− 6	+17.741	108	+ 6.710	332
14.439	0.7834	0.73856	240	−331	9.507	12	+ 47	17.633	114	7.042	331
15.436	0.7861	0.74096	242	−160	9.495	12	+ 87	17.519	120	7.373	329
16.434	0.7888	0.74338	243	+ 68	9.483	13	+107	17.399	124	7.702	326
17.431	0.7916	0.74581	246	+299	9.470	13	+104	17.275	130	8.028	324
18.428	0.7943	0.74827	248	+484	9.457	13	+ 80	17.145	135	8.352	322
19.425	0.7970	+0.75075	250	+585	−9.444	14	+ 40	+17.010	141	+ 8.674	320
20.423	0.7997	0.75325	252	+593	9.430	15	− 6	16.869	145	8.994	317
21.420	0.8025	0.75577	255	+508	9.415	15	− 49	16.724	150	9.311	314
22.417	0.8052	0.75832	258	+351	9.400	16	− 81	16.574	155	9.625	311
23.414	0.8079	0.76090	261	+148	9.384	16	− 99	16.419	161	9.936	309
24.412	0.8107	0.76351	263	− 67	9.368	16	− 99	16.258	165	10.245	306
25.409	0.8134	+0.76614	266	−268	−9.352	16	− 82	+16.093	171	+10.551	303
26.406	0.8161	0.76880	269	−427	9.336	17	− 51	15.922	175	10.854	300
27.403	0.8189	0.77149	272	−517	9.319	17	− 9	15.747	180	11.154	296
28.401	0.8216	0.77421	274	−521	9.302	17	+ 34	15.567	185	11.450	293
29.398	0.8243	0.77695	277	−445	9.285	18	+ 74	15.382	190	11.743	290
30.395	0.8270	0.77972	280	−290	9.267	18	+ 99	15.192	194	12.033	287
31.392	0.8298	+0.78252	283	− 89	−9.249	18	+107	+14.998	200	+12.320	283
Nov. 1.389	0.8325	0.78535	286	+117	9.231	18	+ 92	14.798	204	12.603	279
2.387	0.8352	0.78821	289	+279	9.213	18	+ 55	14.594	208	12.882	275
3.384	0.8380	0.79110	292	+356	9.195	19	+ 5	14.386	213	13.157	271
4.382	0.8407	0.79402	295	+329	9.176	18	− 47	14.173	217	13.428	268
5.379	0.8434	0.79697	298	+203	9.158	19	− 90	13.956	221	13.696	264
6.376	0.8462	+0.79995	302	+ 6	−9.139	19	−111	+13.735	226	+13.960	259
7.373	0.8489	0.80297	305	−206	9.120	19	−106	13.509	230	14.219	255
8.371	0.8516	0.80602	308	−376	9.101	19	− 77	13.279	234	14.474	251
9.368	0.8544	0.80910	311	−453	9.082	18	− 29	13.045	238	14.725	247
10.365	0.8571	0.81221	315	−419	9.064	19	+ 26	12.807	243	14.972	242
11.363	0.8598	0.81536	317	−276	9.045	19	+ 72	12.564	246	15.214	238
12.360	0.8625	+0.81853	321	− 56	−9.026	18	+102	+12.318	250	+15.452	232
13.357	0.8653	0.82174	324	+190	9.008	18	+109	12.068	254	15.684	228
14.354	0.8680	0.82498	327	+406	8.990	19	+ 93	11.814	257	15.912	223
15.352	0.8707	0.82825	330	+552	8.971	18	+ 57	11.557	262	16.135	219
16.349	0.8735	0.83155	333	+602	8.953	18	+ 12	11.295	266	16.354	213
17.346	0.8762	0.83488	336	+558	8.935	18	− 33	11.029	268	16.567	209
18.343	0.8789	+0.83824	339	+427	−8.917	18	− 71	+10.761	272	+16.776	203
19.341	0.8817	0.84163	342	+238	8.899	17	− 95	10.489	276	16.979	199
20.338	0.8844	0.84505	345	+ 24	8.882	18	−101	10.213	277	17.178	193
21.335	0.8871	0.84850	347	−186	8.864	17	− 90	9.936	282	17.371	188
22.333	0.8898	0.85197	351	−361	8.847	16	− 65	9.654	286	17.559	182
23.330	0.8926	+0.85548		−478	−8.831		− 26	+ 9.368		+17.741	

Reduktionsgrößen 1931

für 12ʰ Sternzeit Greenwich

Welt-Zeit	t	A		A′	B		B′	C		D	
1931	″			in 0.00001	″		in 0.001 ″	″		″	
Nov. 23.330	0.8926	+0.85548	353	−478	−8.831	16	− 26	+9.368	287	+17.741	177
24.327	0.8953	0.85901	356	−514	8.815	16	+ 18	9.081	291	17.918	171
25.324	0.8980	0.86257	359	−461	8.799	16	+ 59	8.790	294	18.089	166
26.322	0.9008	0.86616	362	−332	8.783	15	+ 92	8.496	296	18.255	160
27.319	0.9035	0.86978	364	−144	8.768	15	+107	8.200	299	18.415	155
28.316	0.9062	0.87342	366	+ 66	8.753	15	+100	7.901	302	18.570	149
29.313	0.9090	+0.87708	369	+251	−8.738	14	+ 71	+7.599	304	+18.719	143
30.311	0.9117	0.88077	371	+363	8.724	14	+ 25	7.295	306	18.862	138
Dez. 1.308	0.9144	0.88448	374	+375	8.710	13	− 28	6.989	308	19.000	131
2.305	0.9172	0.88822	375	+282	8.697	12	− 75	6.681	311	19.131	126
3.302	0.9199	0.89197	378	+100	8.685	11	−106	6.370	314	19.257	120
4.300	0.9226	0.89575	380	−119	8.674	11	−112	6.056	315	19.377	113
5.297	0.9253	+0.89955	381	−323	−8.663	11	− 92	+5.741	316	+19.490	107
6.294	0.9281	0.90336	383	−452	8.652	10	− 49	5.425	318	19.597	101
7.292	0.9308	0.90719	385	−471	8.642	10	+ 4	5.107	321	19.698	96
8.289	0.9335	0.91104	387	−374	8.632	9	+ 56	4.786	322	19.794	90
9.286	0.9363	0.91491	388	−181	8.623	8	+ 95	4.464	323	19.884	82
10.283	0.9390	0.91879	390	+ 59	8.615	8	+110	4.141	325	19.966	77
11.281	0.9417	+0.92269	391	+298	−8.607	7	+103	+3.816	326	+20.043	70
12.278	0.9445	0.92660	392	+482	8.600	7	+ 74	3.490	327	20.113	65
13.275	0.9472	0.93052	393	+579	8.593	6	+ 31	3.163	328	20.178	58
14.272	0.9499	0.93445	394	+575	8.587	5	− 16	2.835	329	20.236	51
15.270	0.9526	0.93839	395	+479	8.582	5	− 59	2.506	330	20.287	46
16.267	0.9554	0.94234	396	+310	8.577	4	− 87	2.176	331	20.333	39
17.264	0.9581	+0.94630	397	+101	−8.573	4	−102	+1.845	331	+20.372	32
18.262	0.9608	0.95027	397	−111	8.569	3	− 96	1.514	332	20.404	26
19.259	0.9636	0.95424	398	−302	8.566	2	− 75	1.182	333	20.430	19
20.256	0.9663	0.95822	398	−440	8.564	1	− 41	0.849	332	20.449	13
21.253	0.9690	0.96220	398	−509	8.563	1	+ 2	0.517	333	20.462	7
22.251	0.9718	0.96618	398	−490	8.562	−1	+ 44	+0.184	333	20.469	0
23.248	0.9745	+0.97016	398	−387	−8.563	1	+ 81	−0.149	333	+20.469	6
24.245	0.9772	0.97414	398	−214	8.564	2	+104	0.482	333	20.463	13
25.242	0.9800	0.97812	397	− 4	8.566	2	+105	0.815	333	20.450	18
26.240	0.9827	0.98209	397	+200	8.568	3	+ 85	1.148	332	20.432	25
27.237	0.9854	0.98606	397	+349	8.571	3	+ 46	1.480	332	20.407	33
28.234	0.9881	0.99003	396	+410	8.574	4	− 6	1.812	331	20.374	38
29.231	0.9909	+0.99399	396	+360	−8.578	5	− 56	−2.143	330	+20.336	44
30.229	0.9936	0.99795	395	+210	8.583	5	− 96	2.473	330	20.292	52
31.226	0.9963	1.00190	394	− 3	8.588	6	−112	2.803	329	20.240	58
32.223	0.9991	+1.00584		−224	−8.594		−103	−3.132		+20.182	

Übertragung mittlerer Sternörter

von dem Äquinoktium t_1 auf $t_2 = 1931.0$

t_1	$m^s(t_2-t_1)$	$\log[n^s(t_2-t_1)]$	$\log[n''(t_2-t_1)]$
	m s		
1755	+9 0.545	2.371573	3.547665
1790	7 13.095	2.275248	3.451339
1800	6 42.391	2.243290	3.419381
1810	6 11.686	2.208795	3.384886
1825	5 25.624	2.151302	3.327393
1830	+5 10.269	2.130313	3.306404
1835	4 54.914	2.108258	3.284349
1840	4 39.557	2.085023	3.261114
1845	4 24.201	2.060476	3.236567
1850	4 8.844	2.034458	3.210549
1855	+3 53.488	2.006782	3.182873
1860	3 38.130	1.97722	3.153312
1865	3 22.772	1.94550	3.121594
1870	3 7.413	1.91128	3.087375
1875	2 52.054	1.87414	3.050229
1880	+2 36.694	1.83351	3.009606
1885	2 21.334	1.78870	2.96479
1890	2 5.974	1.73872	2.91481
1895	1 50.613	1.68223	2.85832
1900	1 35.251	1.61729	2.79338
1905	+1 19.889	1.54090	2.71699
1910	1 4.527	1.44814	2.62423
1915	0 49.164	1.33003	2.50612
1920	0 33.801	1.16730	2.34339
1925	0 18.437	0.90406	2.08015
1930	+0 3.073	0.12590	1.30199
1935	—0 12.292	0.72795_n	1.90405_n

Sind α_1, δ_1 die Koordinaten für t_1 und α_2, δ_2 jene für $t_2 = 1931.0$, ist ferner α', δ' der genäherte Sternort für die Zeit

$$\frac{1}{2}(t_1 + t_2),$$

so ist

$$\alpha_2 = \alpha_1 + m^s(t_2-t_1) + [n^s(t_2-t_1)] \sin \alpha' \operatorname{tg} \delta'$$
$$\delta_2 = \delta_1 + [n''(t_2-t_1)] \cos \alpha'$$

Übertragung mittlerer Polsternörter

von dem Äquinoktium t_1 auf $t_2 = 1931.0$

t_1	$90° - (N)$	$(m)+(N)-90°$	(n)
	′ ″	′ ″	′ ″
1755	+67 32.95	+67 35.40	+58 48.87
1790	54 7.47	54 9.06	47 6.96
1800	50 17.29	50 18.66	43 46.42
1810	46 27.09	46 28.26	40 25.89
1825	40 41.75	40 42.65	35 25.11
1830	+38 46.63	+38 47.44	+33 44.85
1835	36 51.50	36 52.23	32 4.60
1840	34 56.37	34 57.02	30 24.34
1845	33 1.23	33 1.82	28 44.09
1850	31 6.08	31 6.61	27 3.83
1855	+29 10.93	+29 11.39	+25 23.59
1860	27 15.78	27 16.18	23 43.34
1865	25 20.62	25 20.97	22 3.09
1870	23 25.45	23 25.75	20 22.84
1875	21 30.28	21 30.54	18 42.60
1880	+19 35.11	+19 35.32	+17 2.36
1885	17 39.92	17 40.09	15 22.11
1890	15 44.73	15 44.87	13 41.88
1895	13 49.54	13 49.65	12 1.64
1900	11 54.34	11 54.42	10 21.41
1905	+ 9 59.14	+ 9 59.20	+ 8 41.17
1910	8 3.93	8 3.97	7 0.94
1915	6 8.72	6 8.74	5 20.71
1920	4 13.50	4 13.51	3 40.49
1925	2 18.27	2 18.28	2 0.26
1930	+ 0 23.04	+ 0 23.05	+ 0 20.04
1935	− 1 32.19	− 1 32.18	− 1 20.18

Sind α_1, δ_1 die Koordinaten für t_1 und α_2, δ_2 jene für $t_2 = 1931.0$, so hat man

zur Reduktion von dem Äquinoktium t_1 auf t_2:

$$a_1 = \alpha_1 + [90° - (N)]$$

$$p_1 = \left(\operatorname{tang} \delta_1 + \cos a_1 \operatorname{tang} \tfrac{1}{2}(n)\right) \sin (n)$$

$$\operatorname{tang} \Delta a_1 = \frac{p_1 \sin a_1}{1 - p_1 \cos a_1}$$

$$\alpha_2 = a_1 + [(m)+(N)-90°] + \Delta a_1$$

$$\operatorname{tang} \tfrac{1}{2}(\delta_2 - \delta_1) = \cos\left(a_1 + \tfrac{1}{2}\Delta a_1\right) \sec \tfrac{1}{2}\Delta a_1 \operatorname{tang} \tfrac{1}{2}(n)$$

zur Reduktion von dem Äquinoktium t_2 auf t_1:

$$a_2 = \alpha_2 - [(m) + (N) - 90°]$$

$$p_2 = -\left(\operatorname{tang} \delta_2 - \cos a_2 \operatorname{tang} \tfrac{1}{2}(n)\right) \sin(n)$$

$$\operatorname{tang} \Delta a_2 = \frac{p_2 \sin a_2}{1 - p_2 \cos a_2}$$

$$\alpha_1 = a_2 - [90° - (N)] + \Delta a_2$$

$$\operatorname{tang} \tfrac{1}{2}(\delta_1 - \delta_2) = -\cos\left(a_2 + \tfrac{1}{2}\Delta a_2\right) \sec \tfrac{1}{2}\Delta a_2 \operatorname{tang} \tfrac{1}{2}(n)$$

Reduktion scheinbarer Rektaszensions- und Deklinations-Differenzen auf mittlere für den Jahresanfang

Sind $\Delta\alpha$ und $\Delta\delta$ die gemessenen, scheinbaren Koordinatendifferenzen im Sinne Objekt minus Stern, $d\Delta\alpha$ und $d\Delta\delta$ die an ihnen anzubringenden Korrektionen, um Koordinatendifferenzen zu erhalten, die sich auf das mittlere Äquinoktium des Jahresanfangs beziehen, so wird

$$d\Delta\alpha = (d\Delta\alpha)_1 + (d\Delta\alpha)_2$$
$$d\Delta\delta = (d\Delta\delta)_1 + (d\Delta\delta)_2,$$

wobei

$$(d\Delta\alpha)_1 = -j\cos(G+\alpha)\frac{\operatorname{tg}\delta}{15}\Delta\alpha^{m} - j\sin(G+\alpha)\frac{\sec^2\delta}{225}\Delta\delta'$$

$$(d\Delta\alpha)_2 = -k\cos(H+\alpha)\frac{\sec\delta}{15}\Delta\alpha^{m} - k\sin(H+\alpha)\frac{\operatorname{tg}\delta\sec\delta}{225}\Delta\delta'$$

$$(d\Delta\delta)_1 = j\sin(G+\alpha)\Delta\alpha^{m}$$

$$(d\Delta\delta)_2 = k\sin(H+\alpha)\sin\delta\,\Delta\alpha^{m} - k\cos(H+\alpha)\frac{\cos\delta}{15}\Delta\delta' + [0.0003\,i\sin\delta\,\Delta\delta']$$

Hierin bezeichnen $(d\Delta\alpha)_1$ und $(d\Delta\delta)_1$ den Einfluß der Präzession und Nutation $(d\Delta\alpha)_2$ und $(d\Delta\delta)_2$ den Einfluß der Aberration.

Die Größen G, H, j, k, i sind auf S. 238*—255* zu finden. Die Faktoren $\frac{1}{15}\operatorname{tg}\delta$, $\frac{1}{225}\sec^2\delta$, $\frac{1}{15}\sec\delta$, $\frac{1}{225}\operatorname{tg}\delta\sec\delta$, $\sin\delta$, $\frac{1}{15}\cos\delta$ entnehme man der Zusammenstellung auf S. 268*. Die numerischen Werte der Funktionen sinus und cosinus sind auf S. 269* enthalten. $\Delta\alpha^{m}$ bedeutet die in Zeitminuten ausgedrückte scheinbare Rektaszensionsdifferenz, $\Delta\delta'$ ist die in Bogenminuten ausgedrückte scheinbare Deklinationsdifferenz. Die Größen $d\Delta\alpha$ und $d\Delta\delta$ ergeben sich in Zeit- bzw. Bogensekunden. Das in eckige Klammern gesetzte Glied $0.0003\,i\sin\delta\,\Delta\delta'$ in der Formel für $(d\Delta\delta)_2$ beträgt für $\Delta\delta' = 10'$ im Maximum $0''.02$ und kann daher in den meisten Fällen unberücksichtigt bleiben.

Reduktionsgrößen 1931

δ	$\frac{1}{15}\,\mathrm{tg}\,\delta$	$\frac{1}{225}\sec^2\delta$	$\frac{1}{15}\sec\delta$	$\frac{1}{225}\,\mathrm{tg}\,\delta\sec\delta$	$\sin\delta$	$\frac{1}{15}\cos\delta$	$\mathrm{tg}\,\delta$	$\frac{1}{15}\sec^2\delta$	δ
0°	0.000	0.004	0.067	0.000	0.00	0.07	0.00	0.07	0°
5	0.006	0.004	0.067	0.000	0.09	0.07	0.09	0.07	5
10	0.012	0.005	0.068	0.001	0.17	0.07	0.18	0.07	10
15	0.018	0.005	0.069	0.001	0.26	0.06	0.27	0.07	15
20	0.024	0.005	0.071	0.002	0.34	0.06	0.36	0.08	20
25	0.031	0.005	0.074	0.002	0.42	0.06	0.47	0.08	25
30	0.038	0.006	0.077	0.003	0.50	0.06	0.58	0.09	30
35	0.047	0.007	0.081	0.004	0.57	0.05	0.70	0.10	35
40	0.056	0.008	0.087	0.005	0.64	0.05	0.84	0.11	40
40°	0.056	0.008	0.087	0.005	0.64	0.05	0.84	0.11	40°
42	0.060	0.008	0.090	0.005	0.67	0.05	0.90	0.12	42
44	0.064	0.009	0.093	0.006	0.69	0.05	0.97	0.13	44
46	0.069	0.009	0.096	0.007	0.72	0.05	1.04	0.14	46
48	0.074	0.010	0.100	0.007	0.74	0.04	1.11	0.15	48
50	0.079	0.011	0.104	0.008	0.77	0.04	1.19	0.16	50
52	0.085	0.012	0.108	0.009	0.79	0.04	1.28	0.18	52
54	0.092	0.013	0.113	0.010	0.81	0.04	1.38	0.19	54
56	0.099	0.014	0.119	0.012	0.83	0.04	1.48	0.21	56
58	0.107	0.016	0.126	0.013	0.85	0.04	1.60	0.24	58
60	0.115	0.018	0.133	0.015	0.87	0.03	1.73	0.27	60
60°	0.115	0.018	0.133	0.015	0.87	0.03	1.73	0.27	60°
61	0.120	0.019	0.138	0.017	0.87	0.03	1.80	0.28	61
62	0.125	0.020	0.142	0.018	0.88	0.03	1.88	0.30	62
63	0.131	0.022	0.147	0.019	0.89	0.03	1.96	0.32	63
64	0.137	0.023	0.152	0.021	0.90	0.03	2.05	0.35	64
65	0.143	0.025	0.158	0.023	0.91	0.03	2.14	0.37	65
66	0.150	0.027	0.164	0.025	0.91	0.03	2.25	0.40	66
67	0.157	0.029	0.171	0.027	0.92	0.03	2.36	0.44	67
68	0.165	0.032	0.178	0.029	0.93	0.02	2.48	0.48	68
69	0.174	0.035	0.186	0.032	0.93	0.02	2.61	0.52	69
70	0.183	0.038	0.195	0.036	0.94	0.02	2.75	0.57	70
71	0.194	0.042	0.205	0.040	0.95	0.02	2.90	0.63	71
72	0.205	0.047	0.216	0.044	0.95	0.02	3.08	0.70	72
73	0.218	0.052	0.228	0.050	0.96	0.02	3.27	0.78	73
74	0.232	0.058	0.242	0.056	0.96	0.02	3.49	0.88	74
75	0.249	0.066	0.258	0.064	0.97	0.02	3.73	1.00	75
75.0°	0.249	0.066	0.258	0.064	0.97	0.02	3.73	1.00	75.0°
75.5	0.258	0.071	0.266	0.069	0.97	0.02	3.87	1.06	75.5
76.0	0.267	0.076	0.276	0.074	0.97	0.02	4.01	1.14	76.0
76.5	0.278	0.082	0.286	0.079	0.97	0.02	4.17	1.22	76.5
77.0	0.289	0.088	0.296	0.086	0.97	0.01	4.33	1.32	77.0
77.5	0.301	0.095	0.308	0.093	0.98	0.01	4.51	1.42	77.5
78.0	0.314	0.103	0.321	0.101	0.98	0.01	4.70	1.54	78.0
78.5	0.328	0.112	0.334	0.110	0.98	0.01	4.92	1.68	78.5
79.0	0.343	0.122	0.349	0.120	0.98	0.01	5.14	1.83	79.0
79.5	0.360	0.134	0.366	0.132	0.98	0.01	5.40	2.01	79.5
80.0	0.378	0.147	0.384	0.145	0.98	0.01	5.67	2.21	80.0

	0^h	1^h	2^h	3^h	4^h	5^h	
0^m	0.000	0.259	0.500	0.707	0.866	0.966	60
1	0.004	0.263	0.504	0.710	0.868	0.967	59
2	0.009	0.267	0.508	0.713	0.870	0.968	58
3	0.013	0.271	0.511	0.716	0.872	0.969	57
4	0.017	0.276	0.515	0.719	0.875	0.970	56
5	0.022	0.280	0.519	0.722	0.877	0.971	55
6	0.026	0.284	0.522	0.725	0.879	0.972	54
7	0.031	0.288	0.526	0.728	0.881	0.973	53
8	0.035	0.292	0.530	0.731	0.883	0.974	52
9	0.039	0.297	0.534	0.734	0.885	0.975	51
10	0.044	0.301	0.537	0.737	0.887	0.976	50
11	0.048	0.305	0.541	0.740	0.889	0.977	49
12	0.052	0.309	0.545	0.743	0.891	0.978	48
13	0.057	0.313	0.548	0.746	0.893	0.979	47
14	0.061	0.317	0.552	0.749	0.895	0.980	46
15	0.065	0.321	0.556	0.752	0.897	0.981	45
16	0.070	0.326	0.559	0.755	0.899	0.982	44
17	0.074	0.330	0.563	0.758	0.901	0.982	43
18	0.078	0.334	0.566	0.760	0.903	0.983	42
19	0.083	0.338	0.570	0.763	0.904	0.984	41
20	0.087	0.342	0.574	0.766	0.906	0.985	40
21	0.092	0.346	0.577	0.769	0.908	0.986	39
22	0.096	0.350	0.581	0.772	0.910	0.986	38
23	0.100	0.354	0.584	0.774	0.912	0.987	37
24	0.105	0.358	0.588	0.777	0.914	0.988	36
25	0.109	0.362	0.591	0.780	0.915	0.988	35
26	0.113	0.367	0.595	0.783	0.917	0.989	34
27	0.118	0.371	0.598	0.785	0.919	0.990	33
28	0.122	0.375	0.602	0.788	0.921	0.990	32
29	0.126	0.379	0.605	0.791	0.922	0.991	31
30	0.131	0.383	0.609	0.793	0.924	0.991	30
31	0.135	0.387	0.612	0.796	0.926	0.992	29
32	0.139	0.391	0.616	0.799	0.927	0.993	28
33	0.143	0.395	0.619	0.801	0.929	0.993	27
34	0.148	0.399	0.623	0.804	0.930	0 994	26
35	0.152	0.403	0.626	0.806	0.932	0.994	25
36	0.156	0.407	0.629	0.809	0.934	0.995	24
37	0.161	0.411	0.633	0.812	0.935	0.995	23
38	0.165	0.415	0.636	0.814	0.937	0.995	22
39	0.169	0.419	0.639	0.817	0.938	0.996	21
40	0.174	0.423	0.643	0.819	0.940	0.996	20
41	0.178	0.427	0.646	0.822	0.941	0.997	19
42	0.182	0.431	0.649	0.824	0.943	0.997	18
43	0.187	0.434	0.653	0.827	0.944	0.997	17
44	0.191	0.438	0.656	0.829	0.946	0.998	16
45	0.195	0.442	0.659	0.831	0.947	0.998	15
46	0.199	0.446	0.663	0.834	0.948	0.998	14
47	0.204	0.450	0.666	0.836	0.950	0.998	13
48	0.208	0.454	0.669	0.839	0.951	0.999	12
49	0.212	0.458	0.672	0.841	0.952	0.999	11
50	0.216	0.462	0.676	0.843	0.954	0.999	10
51	0.221	0.466	0.679	0.846	0.955	0.999	9
52	0.225	0.469	0.682	0.848	0.956	0.999	8
53	0.229	0.473	0.685	0.850	0.958	1.000	7
54	0.233	0.477	0.688	0.853	0.959	1.000	6
55	0.238	0.481	0.692	0.855	0.960	1.000	5
56	0.242	0.485	0.695	0.857	0.961	1.000	4
57	0.246	0.489	0.698	0.859	0.962	1.000	3
58	0.250	0.492	0.701	0.862	0.964	1.000	2
59	0.255	0.496	0.704	0.864	0.965	1.000	1
60	0.259	0.500	0.707	0.866	0.966	1 000	0^m
	5^h	4^h	3^h	2^h	1^h	0^h	

Cosinus

Reduktionsgrößen 1931

Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium 1931.0 auf das Normaläquinoktium 1925.0

α	a_1	a_2	d_1	α	α	a_1	a_2	d_1	α
h m	s	s	"	h m	h m	s	s	"	h m
0 0	−0.0350−	−0.0000+	+0.000−	24 0	6 0	+0.0000+	−0.0350+	+0.525−	18 0
10	350	16	023	50	10	16	350	524	50
20	349	31	046	40	20	31	349	523	40
30	347	46	068	30	30	46	347	520	30
40	345	61	091	20	40	61	345	517	20
50	342	76	113	10	50	76	342	512	10
1 0	−0.0338−	−0.0091+	+0.136−	23 0	7 0	+0.0091+	−0.0338+	+0.507−	17 0
10	334	105	158	50	10	105	334	500	50
20	329	120	179	40	20	120	329	493	40
30	323	134	201	30	30	134	323	485	30
40	317	148	222	20	40	148	317	475	20
50	310	162	242	10	50	162	310	465	10
2 0	−0.0303−	−0.0175+	+0.262−	22 0	8 0	+0.0175+	−0.0303+	+0.454−	16 0
10	295	188	282	50	10	188	295	442	50
20	287	201	301	40	20	201	287	430	40
30	278	213	319	30	30	213	278	416	30
40	268	225	337	20	40	225	268	402	20
50	258	237	354	10	50	237	258	387	10
3 0	−0.0248−	−0.0248+	+0.371−	21 0	9 0	+0.0248+	−0.0248+	+0.371−	15 0
10	237	258	387	50	10	258	237	354	50
20	225	268	402	40	20	268	225	337	40
30	213	278	416	30	30	278	213	319	30
40	201	287	430	20	40	287	201	301	20
50	188	295	442	10	50	295	188	282	10
4 0	−0.0175−	−0.0303+	+0.454−	20 0	10 0	+0.0303+	−0.0175+	+0.262−	14 0
10	162	310	465	50	10	310	162	242	50
20	148	317	475	40	20	317	148	222	40
30	134	323	485	30	30	323	134	201	30
40	120	329	493	20	40	329	120	179	20
50	105	334	500	10	50	334	105	158	10
5 0	−0.0091−	−0.0338+	+0.507−	19 0	11 0	+0.0338+	−0.0091+	+0.136−	13 0
10	76	342	512	50	10	342	76	113	50
20	61	345	517	40	20	345	61	091	40
30	46	347	520	30	30	347	46	068	30
40	31	349	523	20	40	349	31	046	20
50	16	350	524	10	50	350	16	023	10
6 0	−0.0000−	−0.0350+	+0.525−	18 0	12 0	+0.0350+	−0.0000+	+0.000−	12 0

Für α zwischen 12^h und 24^h gelten die Vorzeichen zur Rechten.

$$\Delta p_\alpha^{s} = a_1 \cdot \mathrm{tg}\,\delta \cdot \Delta\alpha^{m} + a_2 \cdot \tfrac{1}{15} \sec^2\delta \cdot \Delta\delta'; \qquad \Delta p_\delta'' = d_1 \cdot \Delta\alpha^{m}$$

$\Delta\alpha^{m}$ bedeutet die Rektaszensionsdifferenz in Zeitminuten, $\Delta\delta'$ ist die Deklinationsdifferenz in Bogenminuten.

Die Werte von $\mathrm{tg}\,\delta$ und $\frac{1}{15}\sec^2\delta$ sind auf S. 268* enthalten.

Reduktion vom mittleren Äquinoktium 1925.0 auf das jedesmalige wahre Äquinoktium

0^h Welt-Zeit	f	log g	G	0^h Welt-Zeit	f	log g	G
1931				1931			
Jan. −1	+18.090 s	2.07294	23 h 44 m 22 s	Mai 15	+19.272 s	2.10044	23 h 44 m 3 s
+3	18.138	2.07410	23 44 20	19	19.313	2.10133	23 44 12
7	18.186	2.07524	23 44 17	23	19.354	2.10226	23 44 20
11	18.233	2.07636	23 44 12	27	19.397	2.10321	23 44 28
15	18.279	2.07746	23 44 7	31	19.441	2.10418	23 44 35
19	+18.323	2.07854	23 44 1	Juni 4	+19.486	2.10518	23 44 41
23	18.367	2.07958	23 43 54	8	19.531	2.10618	23 44 46
27	18.409	2.08059	23 43 47	12	19.578	2.10720	23 44 51
31	18.449	2.08156	23 43 40	16	19.624	2.10821	23 44 54
Febr. 4	18.488	2.08249	23 43 32	20	19.671	2.10923	23 44 57
8	+18.525	2.08338	23 43 24	24	+19.718	2.11025	23 44 59
12	18.561	2.08423	23 43 17	28	19.764	2.11127	23 44 59
16	18.595	2.08504	23 43 9	Juli 2	19.811	2.11229	23 44 59
20	18.628	2.08582	23 43 2	6	19.857	2.11331	23 44 57
24	18.659	2.08657	23 42 55	10	19.903	2.11432	23 44 55
28	+18.689	2.08728	23 42 49	14	+19.948	2.11531	23 44 52
März 4	18.718	2.08797	23 42 45	18	19.992	2.11628	23 44 48
8	18.746	2.08863	23 42 41	22	20.035	2.11722	23 44 44
12	18.774	2.08928	23 42 38	26	20.077	2.11814	23 44 39
16	18.801	2.08991	23 42 36	30	20.118	2.11902	23 44 33
20	+18.828	2.09053	23 42 36	Aug. 3	+20.157	2.11989	23 44 27
24	18.855	2.09114	23 42 36	7	20.195	2.12072	23 44 21
28	18.882	2.09176	23 42 38	11	20.232	2.12153	23 44 15
April 1	18.909	2.09238	23 42 41	15	20.268	2.12231	23 44 9
5	18.937	2.09301	23 42 45	19	20.302	2.12306	23 44 3
9	+18.965	2.09365	23 42 50	23	+20.335	2.12377	23 43 57
13	18.994	2.09431	23 42 56	27	20.366	2.12445	23 43 52
17	19.025	2.09498	23 43 3	31	20.397	2.12511	23 43 47
21	19.056	2.09568	23 43 11	Sept. 4	20.427	2.12575	23 43 43
25	19.089	2.09640	23 43 19	8	20.455	2.12637	23 43 40
29	+19.123	2.09715	23 43 27	12	+20.483	2.12697	23 43 37
Mai 3	19.158	2.09792	23 43 36	16	20.511	2.12756	23 43 36
7	19.195	2.09873	23 43 45	20	20.538	2.12814	23 43 35
11	19.233	2.09957	23 43 54	24	20.565	2.12871	23 43 36
15	+19.272	2.10044	23 44 3	28	+20.592	2.12927	23 43 37

Reduktionsgrößen 1931

Reduktion vom mittleren Äquinoktium 1925.0 auf das jedesmalige wahre Äquinoktium

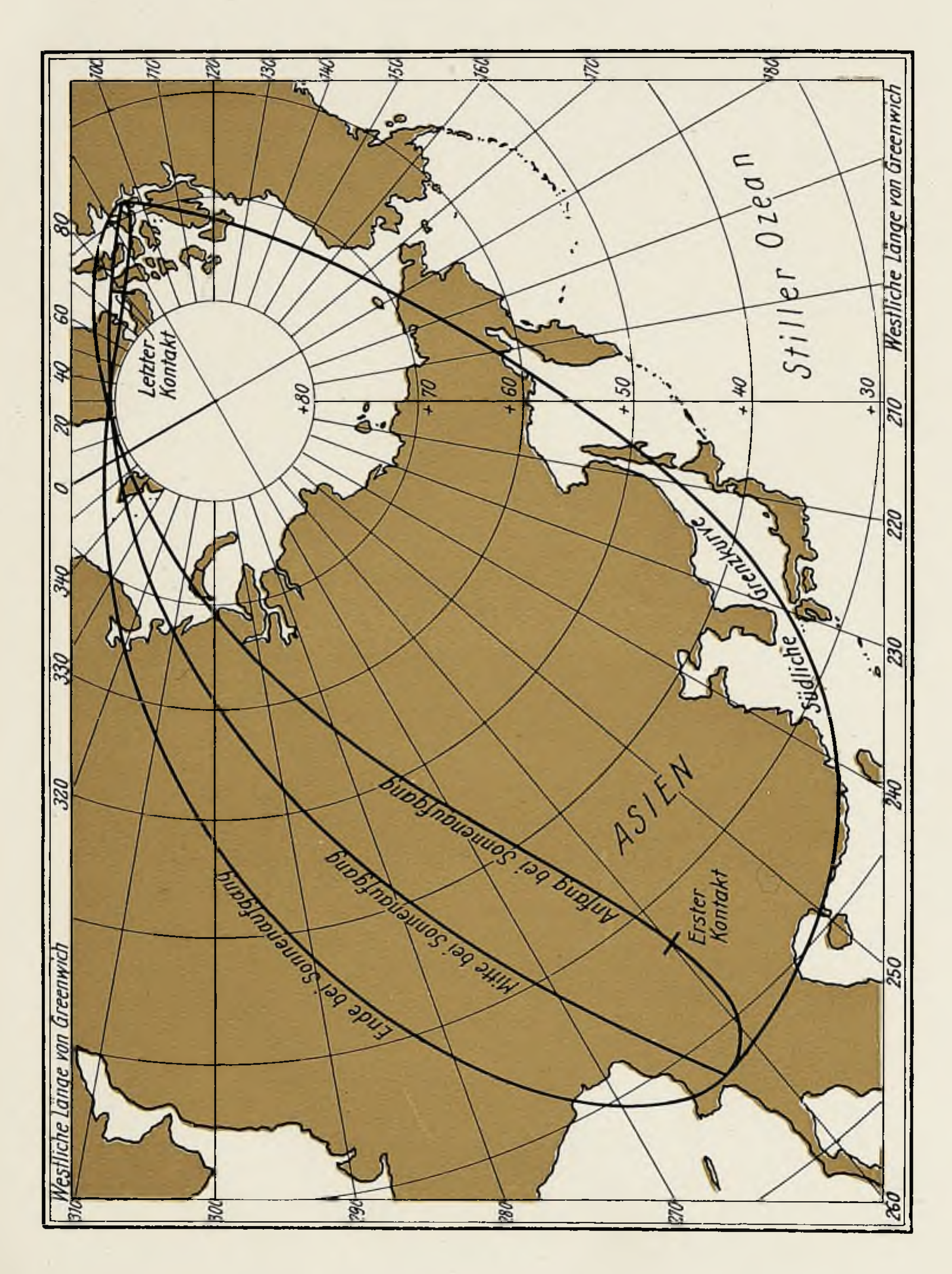
0h Welt-Zeit	f	log g	G	0h Welt-Zeit	f	log g	G
1931				1931			
Sept. 28	+20.592 s	2.12927	23h 43m 37s	Nov. 15	+20.978 s	2.13716	23h 44m 59s
Okt. 2	20.619	2.12983	23 43 39	19	21.020	2.13799	23 45 8
6	20.646	2.13040	23 43 43	23	21.062	2.13885	23 45 17
10	20.674	2.13098	23 43 48	27	21.106	2.13974	23 45 25
14	20.703	2.13157	23 43 53	Dez. 1	21.151	2.14066	23 45 32
18	+20.733	2.13218	23 43 59	5	+21.198	2.14160	23 45 39
22	20.764	2.13281	23 44 6	9	21.245	2.14255	23 45 45
26	20.796	2.13346	23 44 14	13	21.293	2.14352	23 45 50
30	20.829	2.13414	23 44 23	17	21.342	2.14450	23 45 54
Nov. 3	20.864	2.13485	23 44 32	21	21.391	2.14549	23 45 57
7	+20.901	2.13559	23 44 41	25	+21.440	2.14648	23 45 59
11	20.939	2.13636	23 44 50	29	21.489	2.14747	23 46 0
15	+20.978	2.13716	23 44 59	33	+21.537	2.14845	23 45 59

Die mit den vorstehend gegebenen Größen f, log g und G berechnete Reduktion vom mittleren Äquinoktium 1925.0 auf das wahre Äquinoktium der Epoche bedarf noch einer Verbesserung, die von dem Einfluß der Variatio saecularis herrührt und auf S. 273* enthalten ist. Es wird somit:

$$\text{Red. in } \alpha = f + {}^1/_{15}\, g \sin(G+\alpha) \operatorname{tg} \delta + \text{Korr. nach S. } 273^*$$
$$\text{Red. in } \delta = g \cos(G+\alpha) + \text{Korr. nach S. } 273^*$$

Partielle Sonnenfinsternis

1931 April 17–18



Zu Seite 279*

Korrektion der Reduktion vom mittleren Äquinoktium 1925.0 auf das jedesmalige wahre Äquinoktium (s. S. 271*—272*), berechnet für 1931.0, mit Hinzufügung ihrer einjährigen Änderung

Für Rektaszension (in 0ˢ.001)

α	δ +60°	+50°	+30°	+10°	−10°	−30°	−50°	−60°
0ʰ	+10 +3	+7 +2	+3 +1	+1 0	−1 0	−3 −1	−6 −2	−9 −3
1	+13 +4	+9 +3	+4 +1	+2 +1	0 0	−2 −1	−4 −1	−5 −2
2	+15 +5	+10 +3	+5 +2	+2 +1	+1 0	−1 0	−1 0	−1 0
3	+15 +5	+9 +3	+4 +1	+2 +1	+1 0	0 0	0 0	+2 +1
4	+12 +4	+7 +2	+4 +1	+2 +1	+1 0	+1 0	+1 0	+3 +1
5	+7 +2	+4 +1	+2 +1	+1 0	+1 0	+1 0	+1 0	+2 +1
6	0 0	0 0	0 0	0 0	0 0	0 0	0 0	+1 0
7	−6 −2	−4 −1	−1 0	−1 0	0 0	0 0	0 0	−1 0
8	−12 −4	−7 −2	−3 −1	−1 0	0 0	0 0	0 0	−2 −1
9	−15 −5	−9 −3	−4 −1	−2 −1	0 0	+1 0	0 0	−1 0
10	−15 −5	−9 −3	−4 −1	−2 −1	0 0	+1 0	+2 +1	+1 0
11	−13 −4	−8 −3	−4 −1	−1 0	+1 0	+2 +1	+4 +1	+5 +2
12	−9 −3	−6 −2	−3 −1	−1 0	+1 0	+3 +1	+7 +2	+10 +3
13	−5 −2	−4 −1	−2 −1	0 0	+2 +1	+4 +1	+9 +3	+13 +4
14	−1 0	−1 0	−1 0	+1 0	+2 +1	+5 +2	+10 +3	+15 +5
15	+2 +1	0 0	0 0	+1 0	+2 +1	+4 +1	+9 +3	+15 +5
16	+3 +1	+1 0	+1 0	+1 0	+2 +1	+4 +1	+7 +2	+12 +4
17	+2 +1	+1 0	+1 0	+1 0	+1 0	+2 +1	+4 +1	+7 +2
18	+1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
19	−1 0	0 0	0 0	0 0	−1 0	−1 0	−4 −1	−6 −2
20	−2 −1	0 0	0 0	0 0	−1 0	−3 −1	−7 −2	−12 −4
21	−1 0	0 0	+1 0	0 0	−2 −1	−4 −1	−9 −3	−15 −5
22	+1 0	+2 +1	+1 0	0 0	−2 −1	−4 −1	−9 −3	−15 −5
23	+5 +2	+4 +1	+2 +1	+1 0	−1 0	−4 −1	−8 −3	−13 −4
24	+10 +3	+7 +2	+3 +1	+1 0	−1 0	−3 −1	−6 −2	−9 −3

Für Deklination (in 0″.01)

α	δ +60°	+50°	+30°	+10°	−10°	−30°	−50°	−60°
0ʰ	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
1	−3 −1	−3 −1	−2 −1	−2 −1	−2 −1	−2 −1	−2 −1	−2 −1
2	−6 −2	−5 −2	−5 −2	−4 −1	−4 −1	−4 −1	−3 −1	−3 −1
3	−9 −3	−8 −3	−7 −2	−6 −2	−5 −2	−5 −2	−4 −1	−3 −1
4	−12 −4	−10 −3	−9 −3	−8 −3	−7 −2	−6 −2	−4 −1	−3 −1
5	−14 −5	−12 −4	−10 −3	−8 −3	−7 −2	−6 −2	−4 −1	−2 −1
6	−14 −5	−12 −4	−10 −3	−9 −3	−7 −2	−6 −2	−4 −1	−2 −1
7	−13 −4	−12 −4	−10 −3	−8 −3	−7 −2	−6 −2	−4 −1	−2 −1
8	−11 −4	−10 −3	−8 −3	−7 −2	−6 −2	−5 −2	−4 −1	−2 −1
9	−9 −3	−7 −3	−7 −2	−6 −2	−5 −2	−5 −2	−4 −1	−3 −1
10	−5 −2	−5 −2	−4 −1	−4 −1	−4 −1	−3 −1	−3 −1	−2 −1
11	−2 −1	−2 −1	−2 −1	−2 −1	−2 −1	−2 −1	−2 −1	−2 −1
12	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
13	+2 +1	+2 +1	+2 +1	+2 +1	+2 +1	+2 +1	+3 +1	+3 +1
14	+3 +1	+3 +1	+4 +1	+4 +1	+4 +1	+5 +2	+5 +2	+6 +2
15	+3 +1	+4 +1	+5 +2	+5 +2	+6 +2	+7 +2	+8 +3	+9 +3
16	+3 +1	+4 +1	+6 +2	+7 +2	+8 +3	+9 +3	+10 +3	+12 +4
17	+2 +1	+4 +1	+6 +2	+7 +2	+8 +3	+10 +3	+12 +4	+14 +5
18	+2 +1	+4 +1	+6 +2	+7 +2	+9 +3	+10 +3	+12 +4	+14 +5
19	+2 +1	+4 +1	+6 +2	+7 +2	+8 +3	+10 +3	+12 +4	+13 +4
20	+2 +1	+4 +1	+5 +2	+6 +2	+7 +2	+8 +3	+10 +3	+11 +4
21	+3 +1	+4 +1	+5 +2	+5 +2	+6 +2	+7 +2	+7 +3	+9 +3
22	+2 +1	+3 +1	+3 +1	+4 +1	+4 +1	+4 +1	+5 +2	+5 +2
23	+2 +1	+2 +1	+2 +1	+2 +1	+2 +1	+2 +1	+2 +1	+2 +1
24	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0

α	0^h, 12^h		1^h, 13^h		2^h, 14^h		3^h, 15^h		4^h, 16^h		5^h, 17^h		α
	$-A_1+$	$-D+$	$-A_1+$	$-D+$	$-A_1+$	$-D+$	$-A_1+$	$-D+$	$-A_1+$	$-D+$	$-A_1+$	$-D+$	
m	s	"	s	"	s	"	s	"	s	"	s	"	m
0		120.26	2.070	116.19	4.004	104.19	5.665	85.10	6.941	60.20	7.743	31.20	0
1	0.029	120.26	104	116.05	035	103.93	690	84.73	959	59.75	752	30.70	1
2	064	120.26	138	115.91	065	103.67	715	84.36	976	59.30	761	30.19	2
3	099	120.26	171	115.77	095	103.40	740	83.98	6.993	58.84	770	29.68	3
4	134	120.25	205	115.63	125	103.13	764	83.60	7.010	58.38	779	29.17	4
5	169	120.24	238	115.48	155	102.86	788	83.22	027	57.92	787	28.66	5
6	204	120.23	272	115.33	184	102.59	812	82.84	044	57.46	795	28.15	6
7	239	120.21	306	115.18	214	102.31	836	82.46	061	57.00	803	27.64	7
8	274	120.19	339	115.03	244	102.03	860	82.08	077	56.54	811	27.13	8
9	309	120.17	373	114.88	273	101.75	884	81.70	093	56.07	819	26.62	9
10	0.344	120.15	2.406	114.72	4.303	101.47	5.908	81.31	7.109	55.60	7.827	26.11	10
11	379	120.13	439	114.56	332	101.19	932	80.92	125	55.14	835	25.60	11
12	414	120.10	473	114.40	362	100.91	955	80.53	141	54.67	842	25.09	12
13	449	120.07	506	114.24	391	100.62	5.978	80.14	157	54.20	849	24.58	13
14	484	120.04	539	114.08	421	100.33	6.001	79.75	173	53.73	856	24.06	14
15	519	120.01	572	113.91	450	100.04	024	79.36	188	53.26	863	23.54	15
16	554	119.97	605	113.74	479	99.75	047	78.97	204	52.79	870	23.03	16
17	589	119.93	638	113.57	508	99.46	070	78.57	219	52.32	877	22.52	17
18	624	119.89	671	113.40	537	99.16	092	78.17	234	51.85	883	22.00	18
19	659	119.85	704	113.22	565	98.86	115	77.77	249	51.38	889	21.48	19
20	0.693	119.81	2.737	113.04	4.594	98.56	6.138	77.37	7.264	50.90	7.895	20.96	20
21	728	119.76	770	112.86	622	98.26	161	76.97	279	50.43	901	20.45	21
22	763	119.71	803	112.68	651	97.96	183	76.57	294	49.95	907	19.93	22
23	798	119.66	836	112.49	680	97.65	205	76.16	308	49.47	913	19.41	23
24	833	119.61	869	112.30	708	97.34	227	75.75	322	48.99	919	18.89	24
25	867	119.56	901	112.11	737	97.03	249	75.34	336	48.51	924	18.37	25
26	902	119.50	934	111.92	765	96.72	271	74.93	350	48.03	929	17.86	26
27	937	119.44	966	111.73	793	96.41	293	74.52	364	47.55	934	17.34	27
28	0.972	119.38	2.999	111.54	821	96.10	315	74.11	378	47.07	939	16.82	28
29	1.007	119.32	3.031	111.34	849	95.78	336	73.70	392	46.59	944	16.30	29
30	1.041	119.25	3.063	111.14	4.877	95.46	6.357	73.28	7.405	46.10	7.948	15.78	30
31	076	119.18	096	110.94	904	95.14	379	72.86	419	45.62	953	15.26	31
32	111	119.11	128	110.74	932	94.82	400	72.44	432	45.13	957	14.74	32
33	145	119.04	160	110.53	959	94.50	421	72.02	445	44.64	961	14.22	33
34	180	118.96	192	110.32	4.987	94.17	442	71.60	458	44.15	965	13.70	34
35	214	118.88	224	110.11	5.014	93.84	463	71.18	471	43.66	969	13.17	35
36	249	118.80	256	109.90	042	93.51	483	70.76	484	43.17	973	12.65	36
37	283	118.72	288	109.69	069	93.18	504	70.34	496	42.68	977	12.13	37
38	318	118.63	320	109.47	096	92.85	524	69.91	508	42.19	981	11.61	38
39	352	118.54	352	109.25	123	92.52	545	69.48	520	41.70	984	11.09	39
40	1.387	118.45	3.383	109.03	5.150	92.18	6.565	69.05	7.532	41.21	7.987	10.56	40
41	421	118.36	415	108.81	176	91.84	585	68.62	544	40.72	990	10.04	41
42	456	118.27	447	108.59	203	91.50	605	68.19	556	40.23	993	9.52	42
43	490	118.17	478	108.36	229	91.16	625	67.76	568	39.73	996	9.00	43
44	525	118.07	510	108.13	256	90.82	644	67.32	579	39.23	7.998	8.48	44
45	559	117.97	541	107.90	282	90.47	663	66.88	590	38.73	8.000	7.95	45
46	593	117.87	573	107.67	309	90.12	683	66.45	601	38.24	002	7.43	46
47	627	117.76	604	107.43	335	89.77	702	66.01	612	37.74	004	6.90	47
48	662	117.65	635	107.19	361	89.42	721	65.57	623	37.24	006	6.38	48
49	696	117.54	666	106.95	387	89.07	740	65.13	634	36.74	008	5.85	49
50	1.730	117.43	3.697	106.71	5.413	88.72	6.759	64.69	7.645	36.24	8.010	5.33	50
51	764	117.32	728	106.47	438	88.37	778	64.25	656	35.74	012	4.80	51
52	798	117.20	759	106.23	464	88.01	797	63.81	666	35.24	013	4.28	52
53	832	117.08	790	105.98	489	87.65	816	63.36	676	34.74	014	3.75	53
54	866	116.96	821	105.73	515	87.29	834	62.91	686	34.24	015	3.23	54
55	900	116.84	852	105.48	540	86.93	852	62.46	696	33.73	016	2.70	55
56	934	116.71	883	105.23	565	86.57	870	62.01	706	33.23	017	2.18	56
57	1.968	116.58	913	104.97	590	86.21	888	61.56	716	32.73	018	1.65	57
58	2.002	116.45	944	104.71	615	85.84	906	61.11	725	32.22	018	1.13	58
59	036	116.32	974	104.45	640	85.47	924	60.66	734	31.71	018	0.60	59
60	2.070	116.19	4.004	104.19	5.665	85.10	6.941	60.20	7.743	31.20	8.018	0.08	60

α	6^h, 18^h		7^h, 19^h		8^h, 20^h		9^h, 21^h		10^h, 22^h		11^h, 23^h		α
m	$-A_1+$	$+D-$	$-A_1+$	$+D-$	$-A_1+$	$+D-$	$-A_1+$	$+D-$	$-A_1+$	$+D-$	$-A_1+$	$+D-$	m
	s	″	s	″	s	″	s	″	s	″	s	″	
0	8.018		7.746	31.05	6.946	60.06	5.673	84.98	4.013	104.11	2.080	116.15	0
1	018	0.45	737	31.56	929	60.52	648	85.35	3.983	104.37	047	116.28	1
2	018	0.97	728	32.06	911	60.97	623	85.72	952	104.63	2.013	116.41	2
3	018	1.50	719	32.57	893	61.42	598	86.09	922	104.89	1.979	116.54	3
4	017	2.02	709	33.08	875	61.87	573	86.46	891	105.15	945	116.67	4
5	016	2.54	699	33.58	857	62.32	548	86.82	861	105.40	911	116.80	5
6	015	3.07	689	34.09	839	62.77	523	87.18	831	105.65	877	116.92	6
7	014	3.59	679	34.59	821	63.22	498	87.54	800	105.90	843	117.04	7
8	013	4.12	669	35.09	803	63.67	473	87.90	769	106.15	809	117.16	8
9	012	4.64	659	35.59	784	64.11	447	88.26	738	106.40	775	117.28	9
10	8.010	5.16	7.648	36.09	6.765	64.55	5.421	88.61	3.707	106.64	1.741	117.40	10
11	009	5.69	638	36.59	746	64.99	395	88.97	676	106.88	706	117.51	11
12	007	6.21	627	37.09	727	65.43	369	89.32	645	107.12	672	117.62	12
13	005	6.74	616	37.59	708	65.87	343	89.67	613	107.36	638	117.73	13
14	003	7.26	605	38.09	689	66.31	317	90.02	582	107.60	604	117.84	14
15	8.001	7.78	594	38.58	669	66.75	291	90.37	550	107.83	570	117.94	15
16	7.999	8.31	583	39.08	650	67.19	265	90.72	519	108.06	535	118.04	16
17	997	8.83	572	39.57	630	67.62	239	91.06	487	108.28	501	118.14	17
18	994	9.36	560	40.07	610	68.05	212	91.40	456	108.51	467	118.24	18
19	991	9.88	548	40.57	590	68.48	185	91.74	424	108.73	432	118.33	19
20	7.988	10.40	7.536	41.06	6.570	68.91	5.158	92.08	3.393	108.96	1.398	118.42	20
21	985	10.93	524	41.55	550	69.34	131	92.42	361	109.18	363	118.51	21
22	982	11.45	512	42.04	530	69.77	104	92.75	330	109.40	329	118.60	22
23	979	11.97	500	42.53	510	70.20	077	93.08	298	109.62	294	118.69	23
24	975	12.49	487	43.02	490	70.63	050	93.41	266	109.84	260	118.77	24
25	971	13.01	474	43.51	469	71.05	5.023	93.74	234	110.05	225	118.85	25
26	967	13.54	461	44.00	448	71.47	4.996	94.07	202	110.26	191	118.93	26
27	963	14.06	448	44.49	427	71.89	969	94.40	170	110.47	156	119.01	27
28	959	14.58	435	44.98	406	72.31	941	94.72	137	110.68	122	119.08	28
29	955	15.10	422	45.47	385	72.73	913	95.04	105	110.88	087	119.15	29
30	7.950	15.62	7.409	45.95	6.364	73.15	4.885	95.36	3.073	111.08	1.052	119.22	30
31	945	16.14	396	46.44	343	73.57	857	95.68	041	111.28	1.018	119.29	31
32	940	16.66	383	46.92	322	73.98	829	96.00	3.008	111.48	0.983	119.36	32
33	935	17.18	369	47.40	300	74.39	801	96.32	2.976	111.67	948	119.42	33
34	930	17.70	355	47.88	278	74.80	773	96.63	943	111.86	913	119.48	34
35	925	18.21	341	48.36	256	75.21	745	96.94	911	112.05	878	119.54	35
36	920	18.73	327	48.84	234	75.62	717	97.25	878	112.24	844	119.60	36
37	915	19.25	313	49.32	212	76.03	689	97.56	846	112.43	809	119.65	37
38	909	19.77	299	49.80	190	76.44	661	97.87	813	112.62	774	119.70	38
39	903	20.29	284	50.28	168	76.84	632	98.17	780	112.80	739	119.75	39
40	7.897	20.80	7.269	50.75	6.145	77.24	4.603	98.47	2.747	112.98	0.704	119.80	40
41	891	21.32	254	51.23	123	77.64	575	98.77	714	113.16	670	119.84	41
42	885	21.83	239	51.70	100	78.04	546	99.07	681	113.34	635	119.88	42
43	879	22.35	224	52.18	077	78.44	517	99.37	648	113.52	600	119.92	43
44	872	22.86	209	52.65	054	78.84	488	99.66	615	113.69	565	119.96	44
45	865	23.38	193	53.12	031	79.23	459	99.95	582	113.86	530	120.00	45
46	858	23.89	178	53.59	6.008	79.63	430	100.24	549	114.03	495	120.03	46
47	851	24.41	162	54.06	5.985	80.02	401	100.53	515	114.19	460	120.06	47
48	844	24.92	146	54.53	962	80.41	371	100.82	482	114.35	425	120.09	48
49	837	25.44	130	55.00	939	80.80	342	101.11	449	114.51	390	120.12	49
50	7.829	25.95	7.114	55.46	5.915	81.19	4.312	101.39	2.416	114.67	0.355	120.15	50
51	821	26.47	098	55.93	891	81.58	283	101.67	382	114.83	320	120.17	51
52	813	26.98	082	56.39	867	81.97	253	101.95	349	114.99	285	120.19	52
53	805	27.49	066	56.85	843	82.35	224	102.23	316	115.14	250	120.21	53
54	797	28.00	049	57.31	819	82.73	194	102.50	282	115.29	215	120.22	54
55	789	28.51	032	57.77	795	83.11	164	102.77	249	115.44	180	120.23	55
56	781	29.02	7.015	58.23	771	83.49	134	103.04	215	115.59	145	120.24	56
57	773	29.53	6.998	58.69	747	83.87	104	103.31	182	115.73	110	120.25	57
58	764	30.04	981	59.15	723	84.24	074	103.58	148	115.87	075	120.26	58
59	755	30.55	964	59.61	698	84.61	044	103.85	114	116.01	040	120.26	59
60	7.746	31.05	6.946	60.06	5.673	84.98	4.013	104.11	2.080	116.15	0.005	120.26	60

Reduktionsgrößen 1931

Übertragung von Sternörtern vom mittleren Äquinoktium 1931.0 auf das Normaläquinoktium 1925.0

α	A	A_2	D_1	α	α	A	A_2	D_1	α
h m	s	s	"	h m	h m	s	s	"	h m
0 0	−18.437	+0.0000	−0.000	12 0	6 0	−18.437	−0.0000	−0.035	18 0
10	437	02	0	10	10	437	02	35	10
20	437	04	0	20	20	437	04	35	20
30	437	06	1	30	30	437	06	34	30
40	437	08	1	40	40	438	08	34	40
50	437	10	2	50	50	438	10	33	50
1 0	−18.436	+0.0012	−0.002	13 0	7 0	−18.438	−0.0012	−0.033	19 0
10	436	13	3	10	10	438	13	32	10
20	436	15	4	20	20	438	15	31	20
30	436	17	5	30	30	438	17	30	30
40	436	18	6	40	40	438	18	29	40
50	436	19	7	50	50	438	19	28	50
2 0	−18.436	+0.0020	−0.009	14 0	8 0	−18.438	−0.0020	−0.026	20 0
10	436	21	10	10	10	438	21	25	10
20	436	22	12	20	20	438	22	24	20
30	436	23	13	30	30	438	23	22	30
40	436	23	14	40	40	438	23	21	40
50	436	23	16	50	50	438	23	19	50
3 0	−18.436	+0.0023	−0.018	15 0	9 0	−18.438	−0.0023	−0.018	21 0
10	436	23	19	10	10	438	23	16	10
20	436	23	21	20	20	438	23	14	20
30	436	23	22	30	30	438	23	13	30
40	436	22	24	40	40	438	22	12	40
50	436	21	25	50	50	438	21	10	50
4 0	−18.436	+0.0020	−0.026	16 0	10 0	−18.438	−0.0020	−0.009	22 0
10	436	19	28	10	10	438	19	7	10
20	436	18	29	20	20	438	18	6	20
30	436	17	30	30	30	438	17	5	30
40	436	15	31	40	40	438	15	4	40
50	436	13	32	50	50	438	13	3	50
5 0	−18.436	+0.0012	−0.033	17 0	11 0	−18.438	−0.0012	−0.002	23 0
10	437	10	33	10	10	438	10	2	10
20	437	08	34	20	20	438	08	1	20
30	437	06	34	30	30	437	06	1	30
40	437	04	35	40	40	437	04	0	40
50	437	02	35	50	50	437	02	0	50
6 0	−18.437	+0.0000	−0.035	18 0	12 0	−18.437	−0.0000	−0.000	24 0

$$\alpha_{1925} = \alpha_{1931} + A + A_1 \operatorname{tg} \delta_{1931} + A_2 \operatorname{tg}^2 \delta_{1931}$$
$$\delta_{1925} = \delta_{1931} + D + D_1 \operatorname{tg} \delta_{1931}$$

A_1 und D sind aus der Tafel (S. 274*/275*) mit dem Argument α_{1931} zu entnehmen; für die Werte von α zwischen 0^h und 12^h gelten die Vorzeichen zur Linken, für die Werte von α zwischen 12^h und 24^h die Vorzeichen zur Rechten.

Finsternisse, Sternbedeckungen, Mösting A, Trabanten

Konstellationen, Hilfstafeln

1931

Im Jahre 1931 finden drei Sonnenfinsternisse und zwei Mondfinsternisse statt.

I. Totale Mondfinsternis 1931 April 2 sichtbar in Berlin

Opposition in Rektaszension . . . April 2, $19^h 55^m 53^s.4$ Welt-Zeit

Rektaszension des Mondes	$12^h 44^m 32^s.94$
Stündliche Änderung	2 13.54
Rektaszension der Sonne	0 44 32.94
Stündliche Änderung	9.10
Deklination des Mondes	$-4° 33' 11''.0$
Stündliche Änderung	−17 53.9
Deklination der Sonne	+4 47 23.3
Stündliche Änderung	+ 57.7
Äquatorialhorizontalparallaxe des Mondes .	$1° 1' 3''.8$
» der Sonne . .	8.8
Halbmesser des Mondes	$16' 37''.5$
» der Sonne	15 59.8

Eintritt des Mondes in den Halbschatten	April 2,	$17^h 27^m.2$	Welt-Zeit
Eintritt des Mondes in den Kernschatten .	»	18 23.2	»
Anfang der totalen Verfinsterung	»	19 22.3	»
Mitte der Finsternis	»	20 7.4	»
Ende der totalen Verfinsterung	»	20 52.6	»
Austritt des Mondes aus dem Kernschatten	»	21 51.7	»
Austritt des Mondes aus dem Halbschatten	»	22 48.0	»

Der Mond steht zu den Zeiten der ersten und zweiten Berührung mit dem Kernschatten im Zenit der Orte, deren geographische Lage ist:

275° 40′ westliche Länge von Greenwich, 4° 6′ südliche Breite
326° 0′ » » » » 5° 8′ » »

Positionswinkel des Eintritts . . . . = 130°
» » Austritts . . . . = 287°

Größe der Finsternis in Einheiten des Monddurchmessers = 1.509

Der Anfang der Finsternis ist sichtbar in den westlichen Teilen des Stillen Ozeans, in Asien, in Australien, im Indischen Ozean, in Europa außer seiner westlichsten Teile und in Afrika mit Ausnahme der nordwestlichen Teile. Das Ende ist sichtbar in Asien mit Ausnahme der östlichen Teile, im Indischen Ozean, in Europa, in Afrika, im Atlantischen Ozean und in den östlichen Teilen von Südamerika.

II. Partielle Sonnenfinsternis 1931 April 17—18 unsichtbar in Berlin

Konjunktion in Rektaszension . . April 18, $1^h 59^m 22^s.4$ Welt-Zeit

Rektaszension des Mondes	$1^h 40^m 31^s.64$
Stündliche Änderung	1 51.58
Rektaszension der Sonne	1 40 31.64
Stündliche Änderung	9.27
Deklination des Mondes	$+11° 43' 33''.7$
Stündliche Änderung	+13 28.5
Deklination der Sonne	+10 26 19.7
Stündliche Änderung	+ 52.8
Äquatorialhorizontalparallaxe des Mondes .	$54' 44''.3$
» der Sonne . .	8.8
Halbmesser des Mondes	$14' 54''.2$
» der Sonne	15 55.6

	Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite
Beginn der Finsternis . . . April	17, $22^h 57^m.4$	$259° 45'$	$+26° 52'$
Größte Phase . . . . »	18, 0 45.1	301 16	+61 38
Ende der Finsternis . . . . »	18, 2 32.3	80 1	+76 6

Größe der Finsternis in Einheiten des Sonnendurchmessers = 0.511

Die Finsternis ist sichtbar in Asien mit Ausnahme der östlichen und südwestlichen Teile, im nordöstlichsten Teile von Europa und im nördlichen Eismeer.

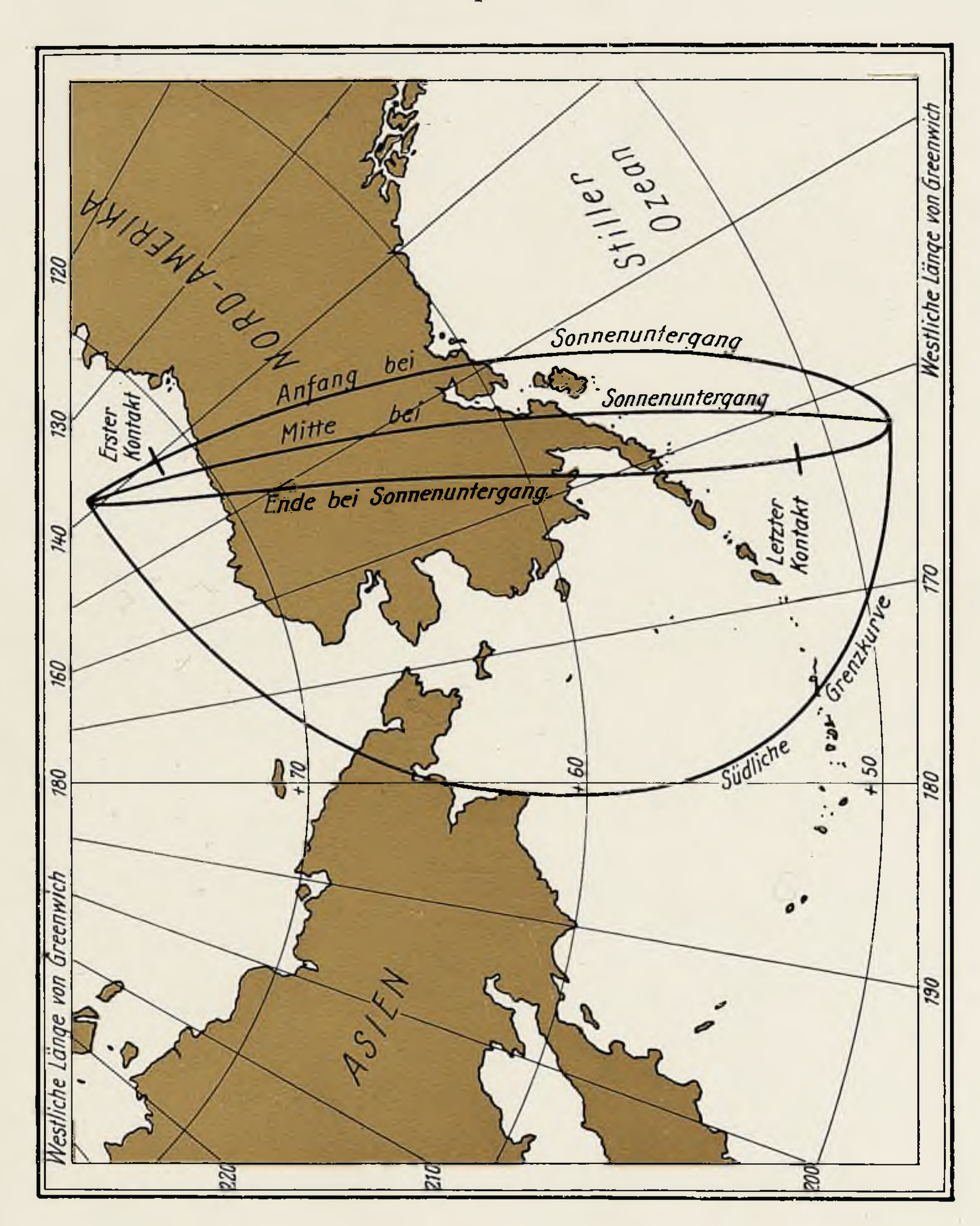
Elemente der partiellen Sonnenfinsternis 1931 April 17—18

Welt-Zeit	x	y	log sin d	log cos d	μ	$l^{(a)}$
22ʰ 50ᵐ	−1.44734	+0.68684	9.25614	9.99282	162° 35.1′	+0.56492
23 0	−1.37094	+0.72532	9.25624	9.99282	165 5.1	+0.56491
10	1.29454	0.76379	9.25634	9.99281	167 35.1	0.56490
20	1.21813	0.80226	9.25643	9.99281	170 5.2	0.56489
30	1.14172	0.84073	9.25653	9.99281	172 35.2	0.56488
40	1.06531	0.87919	9.25663	9.99280	175 5.2	0.56488
50	0.98889	0.91764	9.25673	9.99280	177 35.3	0.56487
0 0	−0.91247	+0.95609	9.25682	9.99280	180 5.3	+0.56486
10	0.83605	0.99454	9.25692	9.99279	182 35.3	0.56485
20	0.75963	1.03298	9.25702	9.99279	185 5.4	0.56483
30	0.68320	1.07141	9.25712	9.99278	187 35.4	0.56482
40	0.60677	1.10984	9.25721	9.99278	190 5.5	0.56481
50	0.53033	1.14826	9.25731	9.99278	192 35.5	0.56480
1 0	−0.45390	+1.18668	9.25741	9.99278	195 5.5	+0.56478
10	0.37746	1.22509	9.25750	9.99277	197 35.6	0.56477
20	0.30102	1.26350	9.25760	9.99277	200 5.6	0.56475
30	0.22457	1.30191	9.25770	9.99277	202 35.6	0.56474
40	0.14812	1.34030	9.25779	9.99276	205 5.7	0.56472
50	−0.07167	1.37869	9.25789	9.99276	207 35.7	0.56471
2 0	+0.00478	+1.41707	9.25799	9.99276	210 5.8	+0.56469
10	0.08124	1.45544	9.25808	9.99275	212 35.8	0.56467
20	0.15770	1.49381	9.25818	9.99275	215 5.8	0.56465
30	0.23417	1.53218	9.25828	9.99275	217 35.9	0.56463
40	+0.31063	+1.57054	9.25837	9.99274	220 5.9	+0.56461

Welt-Zeit	x'	y'	log tang $f^{(a)}$
22ʰ 0ᵐ	+0.007638	+0.003850	7.66813
23 0	0.007640	0.003848	7.66812
0 0	0.007642	0.003845	7.66812
1 0	0.007644	0.003842	7.66811
2 0	0.007645	0.003838	7.66811
3 0	+0.007647	+0.003834	7.66810

Partielle Sonnenfinsternis

1931 September 12



Zu Seite 281*



III. Partielle Sonnenfinsternis 1931 September 12 unsichtbar in Berlin

Konjunktion in Rektaszension September 12, 3h 16m 58s.8 Welt-Zeit

Rektaszension des Mondes	11h 17m 21s.21
Stündliche Änderung	2 15.00
Rektaszension der Sonne	11 17 21.21
Stündliche Änderung	8.99
Deklination des Mondes	+6° 19′ 56″.1
Stündliche Änderung	—17 52.6
Deklination der Sonne	+4 35 18.3
Stündliche Änderung	— 57.1
Äquatorialhorizontalparallaxe des Mondes .	1° 1′ 15″.0
„ der Sonne . .	8.7
Halbmesser des Mondes	16′ 40″.6
„ der Sonne	15 53.5

	Welt-Zeit	Westl. Länge v. Greenwich	Geogr. Breite
Beginn der Finsternis . . .	September 12, 4h 13m.1	140° 27′	+71° 18′
Größte Phase	» 4 40.9	152 39	+61 24
Ende der Finsternis . . .	» 5 9.3	162 29	+51 10

Größe der Finsternis in Einheiten des Sonnendurchmessers = 0.047

Elemente der partiellen Sonnenfinsternis 1931 September 12

Welt-Zeit	x	y	log sin d	log cos d	μ	$l^{(a)}$
4h 10m	+0.45283	+1.46720	8.90141	9.99862	243° 20′.3	+0.53289
20	0.53823	1.42098	8.90117	9.99862	245 50.3	0.53289
30	0.62363	1.37476	8.90093	9.99862	248 20.4	0.53288
40	0.70902	1.32853	8.90069	9.99862	250 50.4	0.53288
50	0.79442	1.28230	8.90045	9.99862	253 20.5	0.53287
5 0	+0.87981	+1.23606	8.90021	9.99862	255 50.5	+0.53287
10	+0.96519	+1.18981	8.89997	9.99863	258 20.6	+0.53286

Welt-Zeit	x'	y'	log tang $f^{(a)}$
4h 0m	+0.008541	—0.004621	7.66702
5 0	0.008539	0.004624	7.66702
6 0	+0.008537	—0.004626	7.66703

Die Finsternis ist sichtbar in Alaska und in der Ostspitze von Asien.

IV. Totale Mondfinsternis 1931 September 26 sichtbar in Berlin

Opposition in Rektaszension . . September 26, 19h 30m 0.9s Welt-Zeit

Rektaszension des Mondes	0h 10m 3.28s
Stündliche Änderung	1 43.89
Rektaszension der Sonne	12 10 3.28
Stündliche Änderung	9.00
Deklination des Mondes	+0° 48′ 42.9″
Stündliche Änderung	+14 13.6
Deklination der Sonne	−1 5 24.1
Stündliche Änderung	− 58.5
Äquatorialhorizontalparallaxe des Mondes . .	53′ 58.4″
» der Sonne . . .	8.8
Halbmesser des Mondes	14′ 41.7″
» der Sonne	15 57.4

Eintritt des Mondes in den Halbschatten	Sept. 26,	16h 40.7m	Welt-Zeit
Eintritt des Mondes in den Kernschatten	»	17 54.2	»
Anfang der totalen Verfinsterung . . .	»	19 5.5	»
Mitte der Verfinsterung	»	19 48.0	»
Ende der totalen Verfinsterung . . .	»	20 30.5	»
Austritt des Mondes aus dem Kernschatten	»	21 41.8	»
Austritt des Mondes aus dem Halbschatten	»	22 55.3	»

Der Mond steht zu den Zeiten der ersten und zweiten Berührung mit dem Kernschatten im Zenit der Orte, deren geographische Lage ist:

271° 19′ westliche Länge von Greenwich, 0° 26′ nördliche Breite
326° 42′ » » » » , 1° 20′ » »

Positionswinkel des Eintritts . . . . = 45°
» » Austritts . . . . = 257°

Größe der Finsternis in Einheiten des Monddurchmessers = 1.326

Der Anfang der Finsternis ist sichtbar in den westlichen Teilen des Stillen Ozeans, in Asien, in Australien, im Indischen Ozean, in Europa außer seiner westlichsten Teile und in Afrika mit Ausnahme der nordwestlichen Teile. Das Ende ist sichtbar in Asien mit Ausnahme der nordöstlichen Teile, im Indischen Ozean, in Europa, in Afrika, im Atlantischen Ozean und in den östlichen Teilen von Südamerika.

V. Partielle Sonnenfinsternis 1931 Oktober 11
unsichtbar in Berlin

Konjunktion in Rektaszension . . Oktober 11, $13^h 53^m 19^s.3$ Welt-Zeit

Rektaszension des Mondes	$13^h\ 3^m\ 43^s.73$
Stündliche Änderung	2 16.43
Rektaszension der Sonne	13 3 43.73
Stündliche Änderung	9.21
Deklination des Mondes	$-8°\ 0'\ 59''.8$
Stündliche Änderung	−17 42.3
Deklination der Sonne	−6 47 26.6
Stündliche Änderung	— 56.8
Äquatorialhorizontalparallaxe des Mondes . .	$1°\ 1'\ 20''.9$
» der Sonne . .	8.8
Halbmesser des Mondes	$16'\ 42''.2$
» der Sonne	16 1.4

	Welt-Zeit	West. Länge v. Greenwich	Geogr. Breite
Beginn der Finsternis . . .	Oktober 11, $11^h\ 1^m.0$	$80°\ 24'$	$-15°\ 40'$
Größte Phase	» 12 55.2	119 37	−61 22
Ende der Finsternis . . .	» 14 48.9	295 30	−70 46

Größe der Finsternis in Einheiten des Sonnendurchmessers = 0.898

Die Finsternis ist sichtbar in Südamerika mit Ausnahme der nördlichen und nordöstlichen Teile, im südlichen Atlantischen und Stillen Ozean und im südlichen Eismeer.

Elemente der partiellen Sonnenfinsternis 1931 Oktober 11

Welt-Zeit	x	y	log sin d	log cos d	μ	$l^{(a)}$
11h 0m	−1.48620	−0.40978	9.06980_n	9.99698	348° 14.8′	+0.53459
10	1.40048	0.45552	9.06996_n	9.99698	350 44.9	0.53460
20	1.31476	0.50125	9.07012_n	9.99698	353 14.9	0.53461
30	1.22903	0.54697	9.07028_n	9.99698	355 45.0	0.53462
40	1.14330	0.59269	9.07044_n	9.99698	358 15.0	0.53463
50	1.05756	0.63841	9.07061_n	9.99697	0 45.0	0.53464
12 0	−0.97182	−0.68412	9.07077_n	9.99697	3 15.1	+0.53465
10	0.88608	0.72983	9.07093_n	9.99697	5 45.1	0.53466
20	0.80033	0.77553	9.07109_n	9.99697	8 15.2	0.53467
30	0.71458	0.82123	9.07125_n	9.99696	10 45.2	0.53467
40	0.62883	0.86692	9.07141_n	9.99696	13 15.2	0.53468
50	0.54307	0.91261	9.07157_n	9.99696	15 45.3	0.53468
13 0	−0.45731	−0.95829	9.07173_n	9.99696	18 15.3	+0.53469
10	0.37155	1.00397	9.07189_n	9.99695	20 45.4	0.53469
20	0.28579	1.04964	9.07205_n	9.99695	23 15.4	0.53469
30	0.20003	1.09531	9.07221_n	9.99695	25 45.4	0.53469
40	0.11426	1.14097	9.07237_n	9.99695	28 15.5	0.53470
50	−0.02849	1.18662	9.07254_n	9.99695	30 45.5	0.53470
14 0	+0.05728	−1.23227	9.07270_n	9.99694	33 15.6	+0.53470
10	0.14305	1.27791	9.07286_n	9.99694	35 45.6	0.53470
20	0.22883	1.32354	9.07302_n	9.99694	38 15.6	0.53470
30	0.31460	1.36917	9.07318_n	9.99694	40 45.7	0.53470
40	0.40037	1.41479	9.07334_n	9.99693	43 15.7	0.53469
50	+0.48615	−1.46040	9.07350_n	9.99693	45 45.8	+0.53469

Welt-Zeit	x'	y'	log tang $f^{(a)}$
11h 0m	+0.008572	−0.004574	7.67059
12 0	0.008574	0.004571	7.67060
13 0	0.008576	0.004568	7.67060
14 0	0.008577	0.004565	7.67061
15 0	+0.008578	−0.004561	7.67061

Elemente der in Mitteleuropa sichtbaren Sternbedeckungen

Stern			Konjunktion in Rektaszension					Grenzen der Sichtbarkeit in geogr. Br.	Alter d. Mondes
Name	Gr.	δ app.	Welt-Zeit	Stundenw. H	Y	x'	y'		

Januar

Name	Gr.	δ app.	Welt-Zeit	Stundenw. H	Y	x'	y'	Grenzen der Sichtbarkeit	Alter d. Mondes
	m	° '	d h m	h m				° °	d
36 Tauri	5.6	+23 55.2	1 16 37.8	−4 41.0	+0.1623	0.5644	+0.1530	+54 −20	12.6
112 B. Aurigae	5.7	+26 53.1	3 5 13.6	+6 28.2	+0.9409	0.5968	+0.0511	+90 +32	14.1
49 Aurigae	5.1	+28 4.8	4 2 42.0	+3 2.1	+0.0633	0.6052	−0.0206	+49 −13	15.0
47 Geminorum	5.6	+26 58.4	4 15 57.6	−8 16.3	+0.5972	0.6051	−0.0658	+89 +11	15.6
c Geminorum	5.5	+25 57.0	5 4 2.0	+3 17.3	+0.5792	0.6016	−0.1055	+86 + 6	16.1
λ Cancri	5.9	+24 14.5	5 17 43.2	−7 35.9	+0.5436	0.5942	−0.1473	+82 0	16.6
l Leonis	5.2	+10 54.6	8 7 3.6	+3 25.5	+0.4928	0.5460	−0.2663	+75 −16	19.2
σ Leonis	4.2	+ 6 24.4	8 21 36.2	−6 31.6	+1.0348	0.5369	−0.2774	+90 +13	19.8
13 Virginis	5.9	− 0 24.3	10 0 48.1	−4 12.7	+0.2352	0.5263	−0.2828	+57 −33	20.9
31 B. Scorpii	5.4	−24 19.8	14 5 30.9	−2 48.0	+0.8894	0.5512	−0.1596	+66 + 6	25.1
40 B. Scorpii	5.4	−24 38.0	14 7 33.7	−0 49.5	+0.8899	0.5521	−0.1550	+66 + 6	25.2
ζ Piscium	5.3	+ 7 12.7	25 14 26.8	−2 27.5	+0.4514	0.4885	+0.2528	+71 −20	6.8
26 B. Arietis	6.0	+11 57.7	26 15 11.1	−2 24.8	+1.3381	0.5020	+0.2373	+82 +43	7.8
40 Arietis	6.0	+18 0.0	27 16 0.3	−2 20.6	+0.3927	0.5218	+0.2104	+68 −16	8.9
π Arietis	5.2	+17 10.8	27 16 23.0	−1 58.5	+1.3500	0.5222	+0.2099	+74 +52	8.9
45 Arietis	6.0	+18 3.3	27 19 31.4	+1 3.9	+1.0633	0.5250	+0.2055	+90 +23	9.0
104 B. Tauri	5.5	+23 12.8	28 19 37.6	+0 21.7	+0.0599	0.5492	+0.1640	+48 −27	10.0
33 Tauri	6.0	+22 58.8	28 23 26.4	+4 2.5	+0.9148	0.5531	+0.1560	+90 +19	10.2
36 Tauri	5.6	+23 55.2	29 2 34.5	+7 3.8	+0.4046	0.5564	+0.1492	+70 − 8	10.3
112 B. Aurigae	5.7	+26 53.1	30 15 53.9	−5 3.3	+1.1020	0.5907	+0.0483	+90 +43	11.9
406 B. Tauri	5.6	+27 57.1	30 21 7.9	−0 2.1	+0.2217	0.5942	+0.0317	+58 − 6	12.1
136 Tauri	4.6	+27 36.0	30 22 1.6	+0 49.3	+0.6063	0.5948	+0.0288	+90 +14	12.1

Februar

Name	Gr.	δ app.	Welt-Zeit	Stundenw. H	Y	x'	y'	Grenzen der Sichtbarkeit	Alter d. Mondes
	m	° '	d h m	h m				° °	d
47 Geminorum	5.6	+26 58.4	1 2 56.0	+4 30.3	+0.6622	0.6035	−0.0683	+90 +14	13.3
c Geminorum	5.5	+25 57.1	1 14 59.6	−7 56.9	+0.6097	0.6019	−0.1084	+89 + 8	13.8
λ Cancri	5.9	+24 14.5	2 4 35.1	+5 4.3	+0.5342	0.5966	−0.1507	+81 0	14.4
37 Leonis	5.5	+14 4.3	4 2 38.8	+1 19.0	+0.8937	0.5650	−0.2556	+90 + 8	16.3
σ Leonis	4.2	+ 6 24.4	5 6 37.5	+4 17.7	+0.8044	0.5468	−0.2847	+90 − 3	17.5
β Virginis	3.8	+ 2 9.1	5 19 57.6	−6 49.5	+1.1702	0.5405	−0.2897	+90 +21	18.0
86 Virginis	5.6	−12 5.0	8 1 32.3	−3 1.2	+0.3621	0.5343	−0.2611	+61 −26	20.3
169 B. Librae	6.0	−22 54.9	10 4 6.6	−2 10.0	+0.3032	0.5494	−0.1746	+47 −28	22.4
42 Librae	5.0	−23 35.8	10 5 11.4	−1 7.5	+0.8300	0.5498	−0.1722	+67 + 2	22.4
α Scorp. (Antares)	1.3	−26 16.9	11 2 25.4	−4 39.0	+0.5355	0.5567	−0.1217	+55 −15	23.3
234 B. Sagittarii	5.9	−28 0.2	14 5 11.7	−4 35.4	+0.7502	0.5502	+0.0778	+62 − 2	26.4
40 Arietis	6.0	+17 59.9	23 23 20.0	+6 46.8	+0.6643	0.5168	+0.2085	+90 − 2	6.5
τ Arietis	5.1	+20 54.1	24 15 6.5	−1 56.6	+0.6323	0.5301	+0.1844	+89 0	7.1
63 Arietis	5.2	+20 29.9	24 15 50.1	−1 14.5	+1.1983	0.5307	+0.1831	+90 +37	7.2
65 Arietis	6.0	+20 33.7	24 16 37.3	−0 28.8	+1.2734	0.5314	+0.1818	+84 +45	7.2
χ Tauri	5.3	+25 28.2	25 18 38.0	+0 38.3	+0.0978	0.5552	+0.1286	+50 −21	8.3
49 Aurigae	5.1	+28 4.8	27 23 36.0	+3 32.5	+0.3356	0.5911	−0.0241	+66 + 1	10.5
54 Aurigae	5.8	+28 19.7	28 1 15.0	+5 7.4	+0.0380	0.5916	−0.0295	+47 −15	10.6

März

Name	Gr.	δ app.	Welt-Zeit	Stundenw. H	Y	x'	y'	Grenzen der Sichtbarkeit	Alter d. Mondes
	m	° '	d h m	h m				° °	d
c Geminorum	5.5	+25 57.1	1 1 41.3	+4 33.0	+0.7417	0.5931	−0.1086	+90 +15	11.6
λ Cancri	5.9	+24 14.5	1 15 34.9	−6 7.7	+0.6378	0.5896	−0.1510	+90 + 5	12.1

Sternbedeckungen 1931

Elemente der in Mitteleuropa sichtbaren Sternbedeckungen

Stern: Name	Gr.	δ app.	Konjunktion in Rektaszension: Welt-Zeit	Stundenw. H	Y	x'	y'	Grenzen der Sichtbarkeit in geogr. Br.	Alter d. Mondes
März									
	m	° ′	d h m	h m				° °	d
l Leonis	5.2	+10 54.5	4 3 53.2	+3 51.3	+0.2700	0.5578	−0.2769	+60 −28	14.7
σ Leonis	4.2	+ 6 24.3	4 17 45.6	−6 45.9	+0.7300	0.5514	−0.2893	+90 − 7	15.2
40 H. Virginis	5.1	−15 58.8	7 21 49.6	−5 18.8	+1.2070	0.5470	−0.2516	+75 +26	18.4
64 G. Librae	5.8	−22 8.9	9 2 23.5	−1 45.6	+1.0189	0.5554	−0.1981	+68 +14	19.6
κ Capricorni	4.8	−19 11.0	16 4 58.1	−5 9.4	+0.7104	0.5076	+0.2063	+71 − 7	26.7
ζ Arietis	4.8	+20 47.5	23 18 6.1	+2 56.4	+0.3126	0.5266	+0.1894	+63 −18	4.5
τ Arietis	5.1	+20 54.1	23 21 6.9	+5 51.4	+0.7565	0.5290	+0.1843	+90 + 6	4.6
63 Arietis	5.2	+20 29.9	23 21 50.8	+6 33.7	+1.3262	0.5296	+0.1831	+74 +54	4.6
36 Tauri	5.6	+23 55.2	24 16 56.4	+1 1.0	+0.7841	0.5448	+0.1458	+90 +12	5.4
47 Geminorum	5.6	+26 58.4	27 21 25.8	+2 36.0	+0.9312	0.5827	−0.0681	+90 +29	8.6
λ Cancri	5.9	+24 14.5	29 0 39.1	+4 44.4	+0.7324	0.5780	−0.1487	+90 +10	9.7
37 Leonis	5.5	+14 4.3	31 0 38.2	+2 54.9	+0.9444	0.5573	−0.2554	+90 +10	11.7
April									
	m	° ′	d h m	h m				° °	d
β Virginis	3.8	+ 2 9.0	1 18 5.3	−5 5.2	+1.0684	0.5450	−0.2951	+90 +14	13.5
86 Virginis	5.6	−12 5.1	3 21 38.4	−3 18.9	+0.1358	0.5507	−0.2708	+48 −38	15.6
42 Librae	5.0	−23 35.9	5 22 7.8	−4 35.5	+0.5474	0.5684	−0.1783	+60 −15	17.6
A Scorpii	4.6	−25 7.6	6 3 34.5	+0 38.8	+1.1736	0.5700	−0.1644	+65 +29	17.8
31 B. Scorpii	5.4	−24 19.9	6 3 42.0	+0 46.1	+0.3430	0.5701	−0.1641	+47 −26	17.9
3 Scorpii	5.9	−25 2.6	6 4 0.1	+1 3.6	+1.0202	0.5702	−0.1633	+65 +15	17.9
33 Tauri	6.0	+22 58.7	20 19 15.9	+5 14.6	+1.2912	0.5452	+0.1534	+77 +52	2.8
406 B. Tauri	5.6	+27 57.1	22 19 19.2	+3 32.2	+0.5166	0.5741	+0.0290	+80 + 9	4.8
136 Tauri	4.6	+27 36.0	22 20 16.6	+4 27.3	+0.9130	0.5745	+0.0262	+90 +32	4.8
l Leonis	5.2	+10 54.6	27 23 29.6	+3 3.9	+0.2761	0.5418	−0.2697	+60 −27	10.0
α Virg. (Spica)	1.2	−10 48.3	30 22 57.9	+0 8.0	+1.4043	0.5451	−0.2789	+72 +49	13.0
Mai									
	m	° ′	d h m	h m				° °	d
40 H. Virginis	5.1	−15 58.9	1 19 6.2	−4 25.9	+1.1660	0.5542	−0.2548	+75 +22	13.8
64 G. Librae	5.8	−22 9.0	2 22 47.2	−1 45.7	+0.9785	0.5687	−0.2025	+68 +11	14.9
234 B. Sagittarii	5.9	−28 0.1	7 2 21.7	−2 2.6	+0.6188	0.5601	+0.0810	+57 −10	19.1
49 Aurigae	5.1	+28 4.8	20 18 36.8	+3 55.8	+0.3030	0.5822	−0.0253	+64 − 1	3.2
c Geminorum	5.5	+25 57.1	21 21 56.8	+6 11.2	+0.6832	0.5770	−0.1071	+90 +11	4.3
σ Leonis	4.2	+ 6 24.4	25 20 50.0	+1 42.3	+0.5860	0.5307	−0.2784	+81 −14	8.3
g Virginis	5.6	− 8 37.1	27 23 40.2	+2 53.5	+1.2647	0.5346	−0.2792	+82 +28	10.4
42 Librae	5.0	−23 36.0	30 18 3.9	−5 3.2	+0.6005	0.5711	−0.1767	+62 −12	13.2
A Scorpii	4.6	−25 7.6	30 23 28.9	+0 9.5	+1.2384	0.5740	−0.1631	+65 +37	13.4
31 B. Scorpii	5.4	−24 20.0	30 23 36.4	+0 16.7	+0.4085	0.5741	−0.1628	+51 −22	13.4
3 Scorpii	5.9	−25 2.7	30 23 54.4	+0 33.9	+1.0860	0.5742	−0.1620	+65 +21	13.4
40 B. Scorpii	5.4	−24 38.3	31 1 29.9	+2 5.8	+0.4160	0.5751	−0.1579	+50 −22	13.5
Juni									
	m	° ′	d h m	h m				° °	d
W Sagittarii (var.)	4.3	−29 35.2	2 3 22.7	+2 0.6	+1.2297	0.5823	−0.0106	+61 +43	15.5
ω Sagittarii	4.8	−26 29.0	4 0 53.5	−2 12.2	+0.4955	0.5549	+0.1167	+52 −17	17.4
A Sagittarii	4.9	−26 23.0	4 2 15.1	−0 53.4	+0.5496	0.5537	+0.1200	+55 −14	17.5
ε Capricorni	4.7	−19 46.5	6 0 15.3	−4 24.2	+1.0615	0.5141	+0.2050	+71 +16	19.4
κ Capricorni	4.8	−19 10.8	6 3 4.6	−1 39.9	+0.9966	0.5119	+0.2088	+71 +11	19.5
ζ Piscium	5.3	+ 7 12.8	11 0 35.6	−7 20.9	+1.0028	0.4896	+0.2532	+90 +11	24.4
40 Arietis	6.0	+17 59.9	13 2 2.5	−7 20.5	+0.8460	0.5232	+0.2085	+90 + 8	26.5

Elemente der in Mitteleuropa sichtbaren Sternbedeckungen

Stern			Konjunktion in Rektaszension					Grenzen der Sichtbarkeit in geogr. Br.	Alter d. Mondes
Name	Gr.	δ app.	Welt-Zeit	Stundenw. H	Y	x'	y'		
Juni									
	m	° '	d h m	h m				° °	d
λ Cancri	5.9	+24 14.6	18 18 55.0	+4 22.8	+0.3812	0.5764	−0.1504	+68 — 9	2.7
37 Leonis	5.5	+14 4.4	20 20 27.6	+4 7.0	+0.5225	0.5438	−0.2497	+77 −14	4.8
χ Leonis	4.6	+ 7 42.5	21 18 46.2	+1 40.7	+1.1071	0.5326	−0.2729	+90 +18	5.7
234 B. Sagittarii	5.9	−28 0.0	30 20 10.3	−4 38.3	+0.8793	0.5661	+0.0852	+62 + 7	14.7
Juli									
	m	° '	d h m	h m				° °	d
φ Capricorni	5.3	−20 56.2	2 22 7.0	−4 24.9	+0.4376	0.5255	+0.1920	+57 −21	16.8
ζ Arietis	4.8	+20 47.5	10 23 26.0	−8 33.3	+0.5383	0.5314	+0.1861	+80 — 5	24.9
τ Arietis	5.1	+20 54.1	11 2 23.4	−5 41.7	+0.9624	0.5341	+0.1810	+90 +19	25.0
Mars	1.6	+ 3 44.4	19 15 22.3	−0 23.9	+0.8387	0.5113	−0.2750	+90 — 1	4.1
α Virginis (Spica)	1.2	−10 48.3	21 19 12.9	+1 45.7	+0.8501	0.5322	−0.2690	+80 0	6.3
64 G. Librae	5.8	−22 9.0	23 21 19.0	+2 9.2	+0.6550	0.5545	−0.1922	+67 — 9	8.4
65 B. Scorpii	5.5	−26 8.8	24 19 10.1	−0 47.8	+1.1416	0.5657	−0.1410	+64 +27	9.3
W Sagittarii (var.)	4.3	−29 35.3	26 18 38.3	−3 8.4	+1.1926	0.5748	−0.0060	+61 +37	11.3
χ Capricorni	5.3	−21 28.2	30 2 20.5	+1 42.9	+0.4643	0.5278	+0.1885	+58 −20	14.6
August									
	m	° '	d h m	h m				° °	d
χ Aquarii	5.3	− 8 5.9	1 21 55.0	−4 40.1	+1.2808	0.4863	+0.2557	+82 +30	17.4
147 B. Piscium	5.9	+ 4 55.8	4 2 23.9	−1 34.1	+0.4741	0.4818	+0.2571	+73 −20	19.6
19 Arietis	5.8	+14 57.7	6 1 4.3	−4 10.5	+0.7887	0.5020	+0.2253	+90 + 2	21.5
23 Tauri	4.3	+23 44.3	7 22 39.6	−8 0.8	+0.1093	0.5393	+0.1567	+51 −24	23.4
η Tauri	2.9	+23 53.8	7 23 11.1	−7 30.3	+0.0210	0.5398	+0.1556	+46 −28	23.5
104 B. Tauri	5.5	+23 12.8	7 23 35.1	−7 7.1	+0.8162	0.5401	+0.1548	+90 +13	23.5
27 Tauri	3.7	+23 50.8	7 23 56.8	−6 46.2	+0.1919	0.5404	+0.1541	+56 −20	23.5
28 Tauri	5.2	+23 55.8	7 23 57.4	−6 45.6	+0.1037	0.5404	+0.1541	+51 −24	23.5
406 B. Tauri	5.6	+27 57.1	10 2 56.2	−5 39.9	+0.5444	0.5812	+0.0222	+83 +12	25.6
136 Tauri	4.6	+27 36.0	10 3 52.2	−4 46.2	+0.9292	0.5817	+0.0194	+90 +33	25.7
g Virginis	5.6	− 8 37.1	17 18 17.0	+2 52.6	+0.5351	0.5379	−0.2804	+75 −18	3.9
43 B. Librae	5.7	−21 6.6	19 18 51.9	+1 47.1	+1.0035	0.5535	−0.2100	+69 +12	6.0
A Scorpii	4.6	−25 7.6	20 18 40.2	+0 43.3	+0.7614	0.5636	−0.1557	+65 — 2	7.0
3 Scorpii	5.9	−25 2.7	20 19 6.4	+1 8.5	+0.6093	0.5638	−0.1546	+61 −11	7.0
π Scorpii	3.0	−25 55.3	20 20 50.4	+2 48.7	+1.2520	0.5645	−0.1502	+65 +40	7.1
ω Sagittarii	4.8	−26 29.0	24 23 0.8	+1 18.1	+0.5649	0.5492	+0.1215	+56 −13	11.2
A Sagittarii	4.9	−26 23.0	25 0 24.1	+2 38.6	+0.6278	0.5483	+0.1247	+61 −10	11.2
κ Capricorni	4.8	−19 10.7	27 1 48.0	+2 26.5	+1.3701	0.5126	+0.2144	+67 +52	13.3
50 Aquarii	5.9	−13 52.5	27 23 45.3	−0 14.5	+0.5306	0.4990	+0.2385	+71 −17	14.2
χ Aquarii	5.3	− 8 5.9	29 4 45.5	+3 58.0	+1.3738	0.4864	+0.2573	+80 +41	15.4
20 Piscium	5.6	− 3 8.4	29 22 31.0	−2 44.7	+0.4977	0.4821	+0.2622	+74 −20	16.1
September									
	m	° '	d h m	h m				° °	d
χ Tauri	5.3	+25 28.3	4 22 46.0	−6 40.1	+0.6747	0.5472	+0.1198	+90 + 9	22.1
φ Capricorni	5.3	−20 56.2	22 18 2.0	−3 7.1	+0.4523	0.5190	+0.1945	+59 −21	10.6
ζ Arietis	4.8	+20 47.7	30 21 45.5	−4 50.8	+1.0494	0.5216	+0.1820	+90 +25	18.7
Oktober									
	m	° '	d h m	h m				° °	d
χ Tauri	5.3	+25 28.3	2 5 17.7	+1 39.2	+0.7288	0.5442	+0.1191	+90 +12	20.0
406 B. Tauri	5.6	+27 57.1	3 19 7.7	−9 53.0	+0.7518	0.5655	+0.0207	+90 +23	21.6
136 Tauri	4.6	+27 36.0	3 20 6.6	−8 56.2	+1.1450	0.5658	+0.0179	+90 +49	21.6
47 Geminorum	5.6	+26 58.3	5 3 55.8	−2 20.0	+0.8771	0.5717	−0.0753	+90 +25	23.0
65 B. Scorpii	5.5	−26 8.8	14 16 22.4	+1 47.5	+0.7870	0.5838	−0.1446	+64 0	3.2
χ Capricorni	5.3	−21 28.2	19 20 42.0	+1 26.7	+0.3894	0.5219	+0.1891	+54 −24	8.4

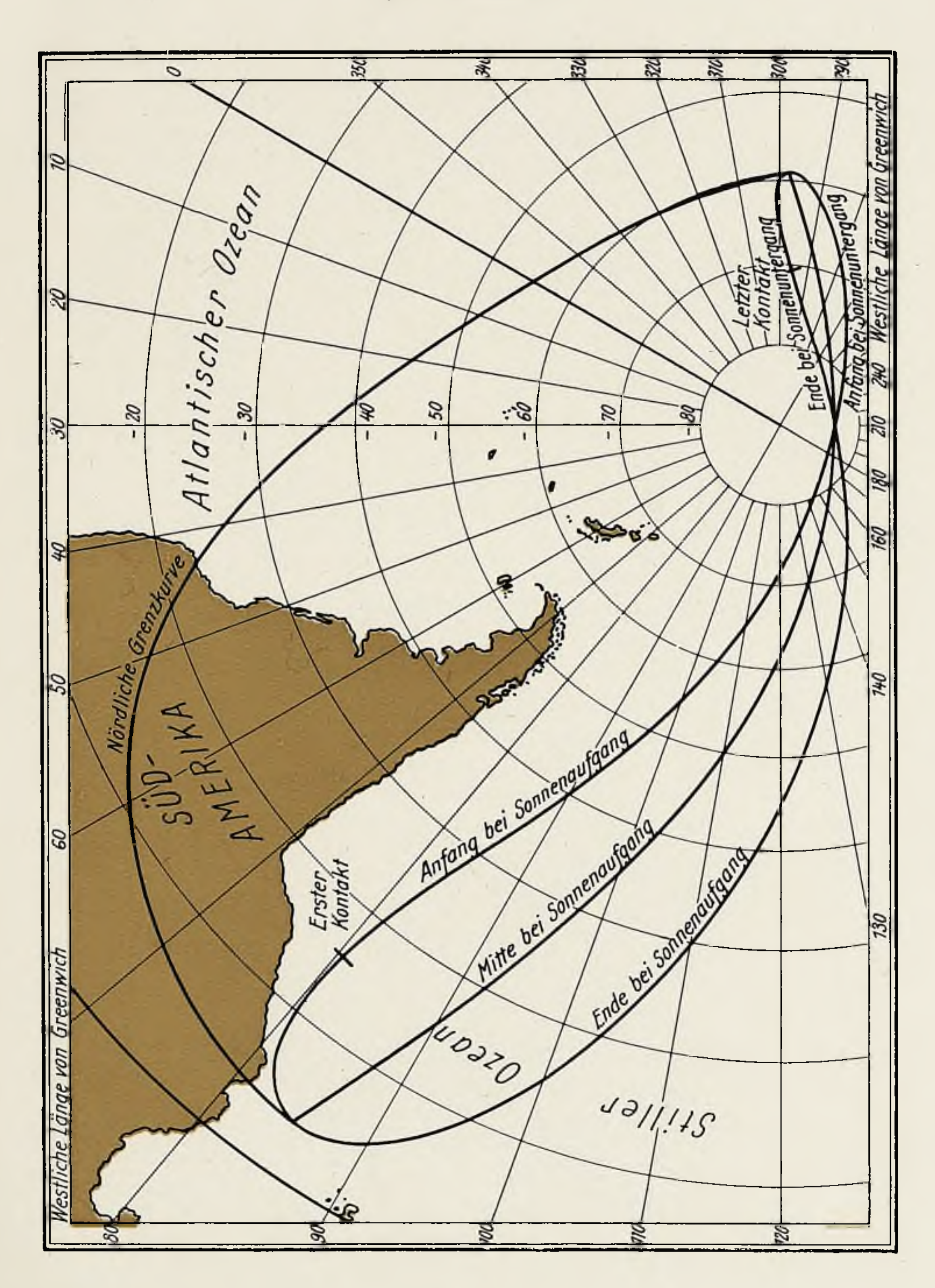
Sternbedeckungen 1931

Elemente der in Mitteleuropa sichtbaren Sternbedeckungen

Stern			Konjunktion in Rektaszension					Grenzen der Sichtbarkeit in geogr. Br.	Alter d. Mondes
Name	Gr.	δ app.	Welt-Zeit	Stundenw. H	Y	x'	y'		
			Oktober						
	m	° '	d h m	h m				° °	d
χ Aquarii	5.3	− 8 5.9	22 17 4.3	−4 8.3	+1.3783	0.4837	+0.2565	+79 +42	11.2
147 B. Piscium	5.9	+ 4 56.0	24 21 42.4	−0 53.1	+0.6561	0.4837	+0.2591	+87 −11	13.4
19 Arietis	5.8	+14 57.8	26 20 20.7	−3 31.7	+0.9953	0.5038	+0.2262	+90 +15	15.3
ζ Arietis	4.8	+20 47.8	28 3 33.9	+2 45.0	+0.9950	0.5246	+0.1824	+90 +21	16.6
23 Tauri	4.3	+23 44.4	28 18 27.7	−6 50.0	+0.2844	0.5351	+0.1547	+62 −15	17.3
η Tauri	2.9	+23 53.9	28 19 0.0	−6 18.9	+0.1940	0.5355	+0.1536	+56 −20	17.3
104 B. Tauri	5.5	+23 13.0	28 19 24.5	−5 55.1	+1.0023	0.5358	+0.1528	+90 +25	17.3
27 Tauri	3.7	+23 51.0	28 19 46.8	−5 33.6	+0.3670	0.5360	+0.1520	+67 −11	17.3
28 Tauri	5.2	+23 56.0	28 19 47.4	−5 32.9	+0.2774	0.5361	+0.1520	+61 −15	17.3
406 B. Tauri	5.6	+27 57.1	31 0 54.0	−2 19.3	+0.6655	0.5646	+0.0202	+90 +18	19.5
136 Tauri	4.6	+27 36.0	31 1 53.3	−1 22.2	+1.0607	0.5649	+0.0174	+90 +42	19.6
49 Aurigae	5.1	+28 4.7	31 19 13.1	−8 41.3	+0.4149	0.5676	−0.0323	+72 + 4	20.3
54 Aurigae	5.8	+28 19.6	31 21 0.5	−6 58.1	+0.0886	0.5677	−0.0374	+50 −13	20.4
			November						
	m	° '	d h m	h m				° °	d
c Geminorum	5.5	+25 57.0	1 23 44.7	−5 14.1	+0.5799	0.5642	−0.1125	+86 + 5	21.5
89 Leonis	5.7	+ 3 26.5	6 6 12.4	−2 20.5	+1.0111	0.5348	−0.2881	+90 +10	25.8
ω Sagittarii	4.8	−26 29.1	14 19 25.2	+3 5.2	+0.6451	0.5584	+0.1248	+62 − 9	4.8
50 Aquarii	5.9	−13 52.6	17 18 56.2	+0 18.9	+0.6954	0.4966	+0.2376	+78 − 9	7.8
20 Piscium	5.6	− 3 8.4	19 17 48.9	−2 4.4	+0.6616	0.4799	+0.2603	+84 −11	9.7
19 Arietis	5.8	+14 57.9	23 3 7.9	+5 3.0	+1.0253	0.5050	+0.2250	+90 +17	13.1
23 Tauri	4.3	+23 44.4	25 0 52.3	+1 22.0	+0.2344	0.5389	+0.1540	+59 −18	15.0
η Tauri	2.9	+23 53.9	25 1 24.2	+1 52.8	+0.1435	0.5394	+0.1529	+53 −22	15.1
104 B. Tauri	5.5	+23 13.0	25 1 48.4	+2 16.3	+0.9477	0.5397	+0.1521	+90 +21	15.1
27 Tauri	3.7	+23 51.0	25 2 10.4	+2 37.6	+0.3144	0.5400	+0.1513	+64 −14	15.1
28 Tauri	5.2	+23 56.0	25 2 11.0	+2 38.1	+0.2251	0.5400	+0.1513	+58 −18	15.1
χ Tauri	5.3	+25 28.4	25 17 11.0	−6 52.8	+0.5788	0.5508	+0.1182	+85 + 4	15.7
406 B. Tauri	5.6	+27 57.1	27 6 40.4	+5 14.6	+0.5284	0.5693	+0.0188	+82 +11	17.3
136 Tauri	4.6	+27 36.0	27 7 39.1	+6 11.1	+0.9210	0.5696	+0.0159	+90 +33	17.3
49 Aurigae	5.1	+28 4.7	28 0 49.5	−1 17.6	+0.2534	0.5716	−0.0339	+60 − 4	18.0
c Geminorum	5.5	+25 56.9	29 5 14.3	+2 2.9	+0.3836	0.5658	−0.1139	+69 − 5	19.2
λ Cancri	5.9	+24 14.3	29 20 36.7	−7 8.7	+0.1181	0.5592	−0.1530	+52 −22	19.9
γ Cancri	4.7	+21 42.9	30 6 25.7	+2 19.0	+1.1345	0.5542	−0.1757	+90 +33	20.3
			Dezember						
	m	° '	d h m	h m				° °	d
χ Leonis	4.6	+ 7 42.3	2 23 29.6	−6 48.5	+0.3895	0.5271	−0.2737	+67 −23	23.0
234 B. Sagittarii	5.9	−28 0.1	11 16 20.0	+2 17.5	+0.9928	0.5771	+0.0940	+62 +15	2.3
φ Capricorni	5.3	−20 56.3	13 16 43.6	+0 57.5	+0.9111	0.5300	+0.1996	+70 + 6	4.3
ε Piscium	4.4	+ 7 31.5	18 20 45.9	+1 32.5	+0.2803	0.4842	+0.2520	+60 −30	9.5
π Piscium	5.6	+11 47.8	19 15 46.9	−3 57.5	+0.2478	0.4921	+0.2403	+59 −29	10.3
ζ Arietis	4.8	+20 47.8	21 18 1.2	−3 12.4	+1.0874	0.5274	+0.1793	+90 +28	12.4
χ Tauri	5.3	+25 28.4	23 0 54.9	+2 38.9	+0.6213	0.5527	+0.1162	+90 + 6	13.6
406 B. Tauri	5.6	+27 57.1	24 13 58.0	−9 40.1	+0.4791	0.5741	+0.0165	+77 + 8	15.2
136 Tauri	4.6	+27 36.0	24 14 55.9	−8 44.5	+0.8664	0.5744	+0.0136	+90 +30	15.2
49 Aurigae	5.1	+28 4.7	25 7 49.7	+7 30.3	+0.1631	0.5774	−0.0366	+55 −10	15.9
47 Geminorum	5.6	+26 58.3	25 22 25.0	−2 28.3	+0.4745	0.5762	−0.0797	+76 + 3	16.5
χ Leonis	4.6	+ 7 42.2	30 5 2.1	+0 31.4	+0.0846	0.5270	−0.2742	+49 −38	20.8

Partielle Sonnenfinsternis

1931 Oktober 11



Zu Seite 283*

Sternbedeckungen 1931

Ein- und Austritte für Berlin-Babelsberg

Tag	Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1931		m		h m	°	m	m	d
Jan. 9	13 Virginis	5.9	A.	23 47.5	355	—0.1	—1.7	20.9
23	24 Piscium	6.1	E.	16 50	24	—0.5	+1.0	4.9
26	12 H¹ Arietis	6.3	E.	16 33.5	22	—0.7	+2.2	7.9
30	406 B. Tauri	5.6	E.	21 0.5	44	—1.5	+1.8	12.1
30	136 Tauri	4.6	E.	22 7.5	126	—1.1	—2.3	12.1
31	415 B. Tauri	6.1	E.	1 28.5	108	—0.1	—1.8	12.2
Febr. 4	37 Leonis	5.5	A.	3 56.5	294	—0.6	—1.7	16.4
8	86 Virginis	5.6	A.	0 39.5	7	+0.7	—2.5	20.2
10	42 Librae	5.0	A.	5 33.5	318	—1.1	—0.5	22.4
März 1	c Geminorum	5.5	E.	2 15.5	84	—0.1	—1.3	11.6
9	64 G. Librae	5.8	A.	2 43.5	271	—1.6	+0.3	19.6
23	ζ Arietis	4.8	E.	18 50	42	—0.8	0.0	4.5
27	47 Geminorum	5.6	E.	22 23.5	180	—	—	8.6
29	λ Cancri	5.9	E.	1 16	70	—0.1	—1.2	9.8
31	37 Leonis	5.5	E.	1 10.5	112	—0.3	—1.7	11.7
April 22	406 B. Tauri	5.6	E.	19 53.5	72	—0.5	—1.1	4.8
22	136 Tauri	4.6	E.	21 4.5	146	+0.7	—2.5	4.9
Juni 23	319 B. Virginis	6.3	E.	20 5.5	47	—0.9	—1.5	7.7
Juli 11	τ Arietis	5.1	A.	1 42.5	242	+0.1	+1.8	25.0
19	Mars	1.6	E.	15 1.5	134	—1.1	—1.1	4.1
19	Mars	1.6	A.	16 14	302	—1.1	—1.3	4.2
21	α Virginis	1.2	E.	19 32.5	70	—1.3	—1.2	6.3
21	α Virginis	1.2	A.	20 15	350	—0.5	—2.0	6.3
Aug. 6	19 Arietis	5.8	A.	0 35.5	269	—0.8	+1.7	21.5
7	104 B. Tauri	5.5	A.	22 58.5	282	+0.2	+1.3	23.5
10	406 B. Tauri	5.6	A.	2 19	297	—0.5	+1.0	25.6
Sept. 4	χ Tauri	5.3	A.	22 4	305	—0.2	+1.0	22.0
14	α Virginis	1.2	E.	9 29	100	—0.7	+1.1	2.2
14	α Virginis	1.2	A.	10 25	329	—0.4	—0.4	2.2
30	ζ Arietis	4.8	A.	20 56	213	+0.2	+2.2	18.7
Okt. 5	4 Cancri	6.2	A.	23 43.5	309	—0.2	+0.6	23.8
23	80 B. Piscium	6.3	E.	20 33	9	—0.3	+2.1	12.4
28	104 B. Tauri	5.5	A.	18 39.5	230	+0.2	+1.9	17.3
31	406 B. Tauri	5.6	A.	0 43.5	214	—0.8	+3.5	19.5
Nov. 1	c Geminorum	5.5	A.	23 11	268	—0.3	+1.6	21.5
17	50 Aquarii	5.9	E.	18 57.5	41	—0.9	+0.4	7.8
19	20 Piscium	5.6	E.	17 25	343	—	—	9.7
25	23 Tauri	4.3	E.	1 20	32	—1.3	+1.3	15.1
25	27 Tauri	3.7	E.	2 49	45	—0.9	0.0	15.1
28	49 Aurigae	5.1	A.	1 11	308	—1.5	—1.6	18.1
29	c Geminorum	5.5	A.	6 3	10	—	—	19.3
Dez. 13	φ Capricorni	5.3	E.	16 45	87	—1.4	—0.9	4.3
15	70 Aquarii	6.1	E.	15 36	63	—1.4	+0.9	6.3
17	98 B. Piscium	6.3	E.	19 3	36	—0.9	+0.9	8.4
18	ε Piscium	4.4	E.	21 31	18	—0.6	+1.4	9.5
22	66 Arietis	6.1	E.	1 17	26	—1.0	+0.9	12.7
23	χ Tauri	5.3	E.	1 25	111	—0.5	—2.2	13.7

Sternbedeckungen 1931

Ein- und Austritte für Königsberg

Tag	Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1931		m		h m	°	m	m	d
Jan. 9	13 Virginis	5.9	A.	23 37	26	—	—	20.9
23	24 Piscium	6.1	E.	16 55.5	26	—0.5	+0.7	4.9
26	12 H¹ Arietis	6.3	E.	16 43.5	27	—0.8	+1.8	7.9
27	40 Arietis	6.0	E.	15 43.5	352	—	—	8.9
30	406 B. Tauri	5.6	E.	21 17	28	—1.7	+2.9	12.1
30	136 Tauri	4.6	E.	22 10	114	—0.9	—1.8	12.1
31	415 B. Tauri	6.1	E.	1 25.5	96	—0.1	—1.6	12.3
Febr. 4	37 Leonis	5.5	A.	3 56	304	—0.3	—1.8	16.4
10	42 Librae	5.0	A.	5 40	326	—1.0	—0.8	22.4
März 1	c Geminorum	5.5	E.	2 13	74	0.0	—1.2	11.6
9	64 G. Librae	5.8	A.	2 54.5	281	—1.4	—0.2	19.6
23	ζ Arietis	4.8	E.	18 56	27	—0.7	+0.5	4.5
27	47 Geminorum	5.6	E.	22 9.5	154	+0.4	—2.7	8.6
29	λ Cancri	5.9	E.	1 14	60	—0.1	—1.2	9.8
31	37 Leonis	5.5	E.	1 9	104	—0.3	—1.8	11.7
April 22	406 B. Tauri	5.6	E.	19 55.5	57	—0.5	—0.9	4.8
22	136 Tauri	4.6	E.	20 55	131	+0.5	—2.0	4.9
Juni 23	319 B. Virginis	6.3	E.	20 8	125	—0.8	—1.6	7.7
Juli 11	τ Arietis	5.1	A.	1 46.5	237	0.0	+1.9	25.0
19	Mars	1.6	E.	15 7	119	—1.1	—1.0	4.1
19	Mars	1.6	A.	16 17.5	315	—0.8	—1.6	4.2
21	α Virginis	1.2	E.	19 37.5	63	—1.0	—1.3	6.3
Aug. 6	19 Arietis	5.8	A.	0 46.5	262	—0.9	+1.7	21.5
7	104 B. Tauri	5.5	A.	23 1	278	0.0	+1.5	23.5
10	406 B. Tauri	5.6	A.	2 25.5	292	—0.6	+1.1	25.6
30	44 Piscium	6.1	A.	19 32	273	—0.4	+1.9	16.9
Sept. 4	χ Tauri	5.3	A.	22 9	298	—0.3	+1.3	22.0
14	α Virginis	1.2	E.	9 39	83	—1.1	+1.6	2.2
14	α Virginis	1.2	A.	10 25.5	347	—0.2	—0.9	2.2
30	ζ Arietis	4.8	A.	21 0	207	+0.1	+2.4	18.7
Okt. 5	4 Cancri	6.2	A.	23 47	307	—0.3	+0.7	23.8
23	80 B. Piscium	6.3	E.	20 40.5	17	—0.5	+1.6	12.4
28	104 B. Tauri	5.5	A.	18 42.5	225	+0.2	+2.0	17.3
31	406 B. Tauri	5.6	A.	0 58	218	—1.1	+3.0	19.5
Nov. 1	c Geminorum	5.5	A.	23 18	269	—0.5	+1.6	21.5
17	50 Aquarii	5.9	E.	19 4	47	—0.8	0.0	7.8
19	20 Piscium	5.6	E.	17 27.5	358	0.0	+2.2	9.7
25	23 Tauri	4.3	E.	1 33	18	—1.2	+2.2	15.1
25	27 Tauri	3.7	E.	2 56.5	29	—0.9	+0.6	15.1
28	49 Aurigae	5.1	A.	1 16	320	—1.2	—2.6	18.1
Dez. 15	70 Aquarii	6.1	E.	15 47.5	70	—1.4	+0.4	6.3
17	98 Piscium	6.3	E.	19 10.5	40	—0.8	+0.5	8.4
18	ε Piscium	4.4	E.	21 38	13	—0.4	+1.5	9.5
22	66 Arietis	6.1	E.	1 32	357	—	—	12.7
23	χ Tauri	5.3	E.	1 23.5	98	—0.4	—1.8	13.7

Sternbedeckungen 1931

Ein- und Austritte für München

Tag	Stern	Größe	Phase	Welt-Zeit	P	a	b	Alter des Mondes
1931		m		h m	°	m	m	d
Jan. 9	13 Virginis	5.9	A.	23 52.5	334	—0.3	—0.7	20.9
23	24 Piscium	6.1	E.	16 45	34	—0.8	+0.9	4.9
30	406 B. Tauri	5.6	E.	20 52	61	—1.7	+1.2	12.1
30	136 Tauri	4.6	E.	22 18.5	148	—0.8	—4.1	12.1
31	415 B. Tauri	6.1	E.	1 36	120	0.0	—2.0	12.3
Febr. 8	86 Virginis	5.6	A.	0 46.5	346	—0.1	—1.1	20.2
10	42 Librae	5.0	A.	5 34	312	—1.3	—0.6	22.4
25	χ Tauri	5.3	E.	19 3.5	16	—1.5	+3.9	8.3
März 1	c Geminorum	5.5	E.	2 21.5	90	0.0	—1.3	11.6
9	64 G. Librae	5.8	A.	2 39	263	—2.0	+0.5	19.6
23	ζ Arietis	4.8	E.	18 50	57	—0.8	—0.4	4.5
29	λ Cancri	5.9	E.	1 21	77	—0.1	—1.2	9.8
31	37 Leonis	5.5	E.	1 17.5	117	—0.3	—1.7	11.8
April 22	406 B. Tauri	5.6	E.	19 58.5	83	—0.4	—1.3	4.8
22	136 Tauri	4.6	E.	21 18.5	164	+1.5	—3.7	4.9
Juni 9	24 Piscium	6.1	A.	2 0.5	259	—0.8	+1.8	22.5
21	χ Leonis	4.6	E.	19 28	153	—0.3	—2.1	5.7
Juli 11	τ Arietis	5.1	A.	1 35	239	+0.1	+1.8	25.0
19	Mars	1.6	E.	15 5.5	144	—1.0	—1.5	4.1
19	Mars	1.6	A.	16 17.5	295	—1.4	—1.3	4.2
21	α Virginis	1.2	E.	19 35	75	—1.4	—1.1	6.3
21	α Virginis	1.2	A.	20 23	345	—0.6	—2.1	6.3
Aug. 4	147 B. Piscium	5.9	A.	2 44.5	296	—	—	19.6
6	19 Arietis	5.8	A.	0 27.5	266	—0.8	+1.7	21.5
10	406 B. Tauri	5.6	A.	2 14	290	—0.4	+1.0	25.6
20	A Scorpii	4.6	E.	18 49	46	—1.8	0.0	6.9
Sept. 4	χ Tauri	5.3	A.	21 59.5	300	—0.1	+0.9	22.0
14	α Virginis	1.2	E.	9 24	114	—0.6	+0.6	2.2
14	α Virginis	1.2	A.	10 25	316	—0.6	—0.1	2.2
30	ζ Arietis	4.8	A.	20 46.5	210	+0.3	+2.2	18.7
Okt. 5	4 Cancri	6.2	A.	23 40.5	300	+0.1	+0.7	23.8
28	104 B. Tauri	5.5	A.	18 32	227	+0.4	+1.8	17.3
31	406 B. Tauri	5.6	A.	0 22.5	190	—	—	19.5
Nov. 1	c Geminorum	5.5	A.	23 3.5	258	—0.2	+1.7	21.5
17	50 Aquarii	5.9	E.	18 54.5	47	—1.1	+0.5	7.8
19	20 Piscium	5.6	E.	17 12.5	349	—	—	9.7
25	23 Tauri	4.3	E.	1 14.5	50	—1.4	+0.6	15.1
25	η Tauri	2.9	E.	2 9.5	24	—1.4	+2.0	15.1
25	27 Tauri	3.7	E.	2 48.5	60	—1.0	—0.5	15.1
25	η Tauri	2.9	A.	2 52.5	312	—0.3	—3.8	15.1
28	49 Aurigae	5.1	A.	1 14	292	—1.7	—0.9	18.1
Dez. 13	φ Capricorni	5.3	E.	16 47	94	—1.8	—1.1	4.3
15	70 Aquarii	6.1	E.	15 29.5	66	—1.6	+1.0	6.3
17	98 B. Piscium	6.3	E.	18 57.5	45	—1.2	+0.8	8.4
18	ε Piscium	4.4	E.	21 25.5	33	—0.8	+0.9	9.5
22	66 Arietis	6.1	E.	1 14	45	—0.9	+0.1	12.7
23	χ Tauri	5.3	E.	1 35.5	128	—0.3	—3.0	13.7

Mond 1931

0ʰ Welt-Zeit		Mondbewegung			Lage des Mondäquators gegen den Erdäquator							
		☊	L☾	M☾	i		Δ		☊'		Δ − ☋	
1931		°	°	°	°		°		°		°	
Jan.	− 7	20.0363	314.7776	159.97	22.009	6	201.334	562	358.593	35	1.298	33
	+ 3	19.5068	86.5415	290.62	22.003	5	200.772	562	358.628	36	1.265	33
	13	18.9772	218.3055	61.27	21.998	4	200.210	563	358.664	36	1.232	32
	23	18.4477	350.0695	191.92	21.994	5	199.647	562	358.700	36	1.200	34
Febr.	2	17.9182	121.8335	322.57	21.989	5	199.085	563	358.736	36	1.166	33
	12	17.3886	253.5974	93.22	21.984	4	198.522	563	358.772	36	1.133	33
	22	16.8591	25.3614	223.87	21.980	4	197.959	563	358.808	36	1.100	33
März	4	16.3296	157.1254	354.52	21.976	5	197.396	563	358.844	36	1.067	34
	14	15.8000	288.8893	125.17	21.971	4	196.833	563	358.880	37	1.033	33
	24	15.2705	60.6533	255.82	21.967	4	196.270	563	358.917	36	1.000	34
April	3	14.7409	192.4173	26.47	21.963	3	195.707	564	358.953	37	0.966	34
	13	14.2114	324.1812	157.12	21.960	4	195.143	563	358.990	36	0.932	34
	23	13.6819	95.9452	287.77	21.956	4	194.580	564	359.026	37	0.898	34
Mai	3	13.1523	227.7092	58.42	21.952	3	194.016	563	359.063	37	0.864	34
	13	12.6228	359.4731	189.07	21.949	3	193.453	564	359.100	37	0.830	34
	23	12.0932	131.2371	319.72	21.946	3	192.889	564	359.137	37	0.796	34
Juni	2	11.5637	263.0011	90.37	21.943	3	192.325	564	359.174	38	0.762	35
	12	11.0342	34.7650	221.02	21.940	3	191.761	564	359.212	37	0.727	34
	22	10.5046	166.5290	351.67	21.937	3	191.197	564	359.249	37	0.693	35
Juli	2	9.9751	298.2930	122.32	21.934	2	190.633	564	359.286	38	0.658	34
	12	9.4456	70.0569	252.97	21.932	3	190.069	564	359.324	38	0.624	35
	22	8.9160	201.8209	23.62	21.929	2	189.505	564	359.362	37	0.589	35
Aug.	1	8.3865	333.5849	154.27	21.927	2	188.941	564	359.399	38	0.554	34
	11	7.8569	105.3488	284.92	21.925	2	188.377	565	359.437	37	0.520	35
	21	7.3274	237.1128	55.57	21.923	2	187.812	564	359.474	38	0.485	35
	31	6.7978	8.8768	186.22	21.921	2	187.248	564	359.512	38	0.450	35
Sept.	10	6.2683	140.6407	316.87	21.919	1	186.684	565	359.550	38	0.415	35
	20	5.7388	272.4047	87.52	21.918	2	186.119	564	359.588	38	0.380	35
	30	5.2092	44.1687	218.17	21.916	1	185.555	565	359.626	38	0.345	35
Okt.	10	4.6797	175.9326	348.82	21.915	1	184.990	564	359.664	38	0.310	35
	20	4.1502	307.6966	119.47	21.914	1	184.426	565	359.702	38	0.275	35
	30	3.6206	79.4606	250.12	21.913	1	183.861	565	359.740	38	0.240	35
Nov.	9	3.0911	211.2245	20.77	21.912	1	183.296	564	359.778	38	0.205	35
	19	2.5615	342.9885	151.42	21.911	1	182.732	565	359.816	38	0.170	35
	29	2.0320	114.7525	282.07	21.910	0	182.167	565	359.854	38	0.135	35
Dez.	9	1.5025	246.5164	52.72	21.910	0	181.602	564	359.892	38	0.100	35
	19	0.9729	18.2804	183.36	21.910	1	181.038	565	359.930	38	0.065	35
	29	0.4434	150.0444	314.01	21.909	0	180.473	565	359.968	38	0.030	36
	39	359.9138	281.8083	84.66	21.909		179.908		0.006		359.994	

Tag	0h Welt-Zeit								
	$\alpha_☾ - \alpha_k$			$\delta_☾ - \delta_k$			log sin p_k		
1931	s	s	s	″	″	″			
Jan. −1	− 0.14	+1.24		+ 38.5	−18.3		8.21092	+585	
0	+ 1.10	+0.74	−0.50	+ 20.2	−21.1	− 2.8	8.21677	+646	+ 61
+1	+ 1.84	−0.02	−0.76	− 0.9	−22.1	− 1.0	8.22323	+659	+ 13
2	+ 1.82	−0.96	−0.94	− 23.0	−19.0	+ 3.1	8.22982	+617	− 42
3	+ 0.86	−1.84	−0.88	− 42.0	−10.9	+ 8.1	8.23599	+521	− 96
4	− 0.98	−2.33	−0.49	− 52.9	+ 1.6	+12.5	8.24120	+378	−143
5	− 3.31	−2.23	+0.10	− 51.3	+14.9	+13.3	8.24498	+203	−175
6	− 5.54	−1.71	+0.52	− 36.4	+25.4	+10.5	8.24701	+ 21	−182
7	− 7.25	−1.12	+0.59	− 11.0	+31.0	+ 5.6	8.24722	−150	−171
8	− 8.37	−0.63	+0.49	+ 20.0	+32.3	+ 1.3	8.24572	−286	−136
9	− 9.00	−0.34	+0.29	+ 52.3	+30.2	− 2.1	8.24286	−385	− 99
10	− 9.34	−0.23	+0.11	+ 82.5	+26.1	− 4.1	8.23901	−441	− 56
11	− 9.57	−0.26	−0.03	+108.6	+20.7	− 5.4	8.23460	−463	− 22
12	− 9.83	−0.39	−0.13	+129.3	+14.8	− 5.9	8.22997	−461	+ 2
13	−10.22			+144.1			8.22536		
Jan. 27	+ 1.31	+1.29		+ 24.5	−18.3		8.20984	+589	
28	+ 2.60	+0.73	−0.56	+ 6.2	−20.6	− 2.3	8.21573	+676	+ 87
29	+ 3.33	−0.11	−0.84	− 14.4	−20.7	− 0.1	8.22249	+723	+ 47
30	+ 3.22	−1.12	−1.01	− 35.1	−16.5	+ 4.2	8.22972	+716	− 7
31	+ 2.10	−2.02	−0.90	− 51.6	− 6.7	+ 9.8	8.23688	+647	− 69
Febr. 1	+ 0.08	−2.47	−0.45	− 58.3	+ 7.0	+13.7	8.24335	+514	−133
2	− 2.39	−2.35	+0.12	− 51.3	+21.2	+14.2	8.24849	+323	−191
3	− 4.74	−1.90	+0.45	− 30.1	+32.0	+10.8	8.25172	+100	−223
4	− 6.64	−1.37	+0.53	+ 1.9	+37.2	+ 5.2	8.25272	−127	−227
5	− 8.01	−0.99	+0.38	+ 39.1	+37.0	− 0.2	8.25145	−332	−205
6	− 9.00	−0.76	+0.23	+ 76.1	+32.6	− 4.4	8.24813	−488	−156
7	− 9.76	−0.69	+0.07	+108.7	+25.6	− 7.0	8.24325	−587	− 99
8	−10.45	−0.71	−0.02	+134.3	+17.4	− 8.2	8.23738	−630	− 43
9	−11.16	−0.77	−0.06	+151.7	+ 9.1	− 8.3	8.23108	−624	+ 6
10	−11.93			+160.8			8.22484		
Febr. 25	+ 3.24	+0.63		− 11.4	−19.1		8.21438	+627	
26	+ 3.87	−0.18	−0.81	− 30.5	−17.7	+ 1.4	8.22065	+692	+ 65
27	+ 3.69	−1.09	−0.91	− 48.2	−12.2	+ 5.5	8.22757	+718	+ 26
28	+ 2.60	−1.82	−0.73	− 60.4	− 1.8	+10.4	8.23475	+692	− 26
März 1	+ 0.78	−2.15	−0.33	− 62.2	+11.5	+13.3	8.24167	+598	− 94
2	− 1.37	−2.06	+0.09	− 50.7	+25.0	+13.5	8.24765	+441	−157
3	− 3.43	−1.78	+0.28	− 25.7	+35.2	+10.2	8.25206	+229	−212
4	− 5.21		+0.30	+ 9.5		+ 5.3	8.25435		−244

Mondkrater Mösting A. 1931

Tag	0ʰ Welt-Zeit								
	$\alpha_☾ - \alpha_k$			$\delta_☾ - \delta_k$			log sin p_k		
1931	s	s	s	″	″	″			
März 4	− 5.21	−1.48	+0.30	+ 9.5	+40.5	+ 5.3	8.25435	− 15	−244
5	− 6.69	−1.29	+0.19	+ 50.0	+39.9	− 0.6	8.25420	−254	−239
6	− 7.98	−1.23	+0.06	+ 89.9	+34.5	− 5.4	8.25166	−462	−208
7	− 9.21	−1.27	−0.04	+124.4	+25.5	− 9.0	8.24704	−613	−151
8	−10.48	−1.33	−0.06	+149.9	+15.0	−10.5	8.24091	−698	− 85
9	−11.81	−1.29	+0.04	+164.9	+ 4.3	−10.7	8.23393	−721	− 23
10	−13.10	−1.09	+0.20	+169.2	− 5.0	− 9.3	8.22672	−690	+ 31
11	−14.19	−0.64	+0.45	+164.2	−11.6	− 6.6	8.21982	−618	+ 72
12	−14.83			+152.6			8.21364		
März 27	+ 2.79	−1.02		− 58.4	− 5.7		8.22584	+622	
28	+ 1.77	−1.42	−0.40	− 64.1	+ 4.4	+10.1	8.23206	+621	− 1
29	+ 0.35	−1.53	−0.11	− 59.7	+16.0	+11.6	8.23827	+569	− 52
30	− 1.18	−1.46	+0.07	− 43.7	+27.1	+11.1	8.24396	+463	−106
31	− 2.64	−1.34	+0.12	− 16.6	+35.6	+ 8.5	8.24859	+299	−164
April 1	− 3.98	−1.28	+0.06	+ 19.0	+40.1	+ 4.5	8.25158	+ 94	−205
2	− 5.26	−1.33	−0.05	+ 59.1	+39.5	− 0.6	8.25252	−133	−227
3	− 6.59	−1.49	−0.16	+ 98.6	+34.0	− 5.5	8.25119	−351	−218
4	− 8.08	−1.71	−0.22	+132.6	+24.4	− 9.6	8.24768	−531	−180
5	− 9.79	−1.85	−0.14	+157.0	+12.5	−11.9	8.24237	−655	−124
6	−11.64	−1.76	+0.09	+169.5	+ 0.4	−12.1	8.23582	−715	− 60
7	−13.40	−1.34	+0.42	+169.9	− 9.6	−10.0	8.22867	−714	+ 1
8	−14.74	−0.64	+0.70	+160.3	−16.0	− 6.4	8.22153	−663	+ 51
9	−15.38	+0.18	+0.82	+144.3	−18.6	− 2.6	8.21490	−573	+ 90
10	−15.20	+0.90	+0.72	+125.7	−18.2	+ 0.4	8.20917	−460	+113
11	−14.30			+107.5			8.20457		
April 25	− 0.10	−1.00		− 58.3	+11.7		8.23113	+466	
26	− 1.10	−0.92	+0.08	− 46.6	+20.8	+ 9.1	8.23579	+434	− 32
27	− 2.02	−0.82	+0.10	− 25.8	+28.7	+ 7.9	8.24013	+366	− 68
28	− 2.84	−0.80	+0.02	+ 2.9	+34.2	+ 5.5	8.24379	+256	−110
29	− 3.64	−0.90	−0.10	+ 37.1	+36.9	+ 2.7	8.24635	+109	−147
30	− 4.54	−1.15	−0.25	+ 74.0	+35.6	− 1.3	8.24744	− 65	−174
Mai 1	− 5.69	−1.50	−0.35	+109.6	+30.0	− 5.6	8.24679	−245	−180
2	− 7.19	−1.86	−0.36	+139.6	+20.6	− 9.4	8.24434	−413	−168
3	− 9.05	−2.09	−0.23	+160.2	+ 8.6	−12.0	8.24021	−544	−131
4	−11.14	−1.95	+0.14	+168.8	− 3.4	−12.0	8.23477	−627	− 83
5	−13.09	−1.38	+0.57	+165.4	−13.2	− 9.8	8.22850	−654	− 27
6	−14.47	−0.52	+0.86	+152.2	−18.6	− 5.4	8.22196	−631	+ 23
7	−14.99	+0.39	+0.91	+133.6	−20.0	− 1.4	8.21565	−563	+ 68
8	−14.60	+1.08	+0.69	+113.6	−18.5	+ 1.5	8.21002	−461	+102
9	−13.52	+1.54	+0.46	+ 95.1	−15.9	+ 2.6	8.20541	−338	+123
10	−11.98	+1.78	+0.24	+ 79.2	−13.4	+ 2.5	8.20203	−205	+133
11	−10.20			+ 65.8			8.19998		

Tag		0^h Welt-Zeit								
		$\alpha_{☾} - \alpha_k$			$\delta_{☾} - \delta_k$			log sin p_k		
1931										
Mai	24	−2.98ˢ	−0.49ˢ		−22.6″	+25.5″		8.23583	+239	
	25	−3.47	−0.38	+0.11ˢ	+2.9	+29.9	+4.4″	8.23822	+184	−55
	26	−3.85	−0.43	−0.05	+32.8	+32.2	+2.3	8.24006	+111	−73
	27	−4.28	−0.61	−0.18	+65.0	+32.1	−0.1	8.24117	+18	−93
	28	−4.89	−0.95	−0.34	+97.1	+29.2	−2.9	8.24135	−94	−112
	29	−5.84	−1.39	−0.44	+126.3	+23.0	−6.2	8.24041	−214	−120
	30	−7.23	−1.80	−0.41	+149.3	+13.8	−9.2	8.23827	−332	−118
	31	−9.03	−2.00	−0.20	+163.1	+2.6	−11.2	8.23495	−436	−104
Juni	1	−11.03	−1.77	+0.23	+165.7	−8.1	−10.7	8.23059	−511	−75
	2	−12.80	−1.10	+0.67	+157.6	−16.2	−8.1	8.22548	−548	−37
	3	−13.90	−0.21	+0.89	+141.4	−20.0	−3.8	8.22000	−543	+5
	4	−14.11	+0.63	+0.84	+121.4	−20.2	−0.2	8.21457	−497	+46
	5	−13.48	+1.24	+0.61	+101.2	−18.1	+2.1	8.20960	−417	+80
	6	−12.24	+1.61	+0.37	+83.1	−15.3	+2.8	8.20543	−309	+108
	7	−10.63	+1.80	+0.19	+67.8	−12.9	+2.4	8.20234	−182	+127
	8	−8.83	+1.87	+0.07	+54.9	−11.4	+1.5	8.20052	−44	+138
	9	−6.96			+43.5			8.20008		
Juni	24	−5.63ˢ	−0.57ˢ		+98.6″	+26.6″		8.23786	−149	
	25	−6.20	−0.92	−0.35ˢ	+125.2	+21.5	−5.1″	8.23637	−207	−58
	26	−7.12	−1.33	−0.41	+146.7	+13.7	−7.8	8.23430	−268	−61
	27	−8.45	−1.65	−0.32	+160.4	+5.1	−8.6	8.23162	−327	−59
	28	−10.10	−1.64	+0.01	+165.5	−5.0	−10.1	8.22835	−380	−53
	29	−11.74	−1.25	+0.39	+160.5	−13.4	−8.4	8.22455	−420	−40
	30	−12.99	−0.53	+0.72	+147.1	−18.9	−5.5	8.22035	−443	−23
Juli	1	−13.52	+0.28	+0.81	+128.2	−20.6	−1.7	8.21592	−438	+5
	2	−13.24	+0.95	+0.67	+107.6	−19.7	+0.9	8.21154	−404	+34
	3	−12.29	+1.41	+0.46	+87.9	−17.1	+2.6	8.20750	−340	+64
	4	−10.88	+1.70	+0.29	+70.8	−14.6	+2.5	8.20410	−253	+87
	5	−9.18	+1.83	+0.13	+56.2	−12.4	+2.2	8.20157	−140	+113
	6	−7.35	+1.87	+0.04	+43.8	−11.1	+1.3	8.20017	−13	+127
	7	−5.48	+1.84	−0.03	+32.7	−10.9	+0.2	8.20004	+122	+135
	8	−3.64			+21.8			8.20126		
Juli	23	−8.16ˢ	−1.13ˢ		+152.2″	+12.9″		8.23376	−368	
	24	−9.29	−1.37	−0.24ˢ	+165.1	+4.1	−8.8″	8.23008	−383	−15
	25	−10.66	−1.41	−0.04	+169.2	−4.9	−9.0	8.22625	−387	−4
	26	−12.07	−1.11	+0.30	+164.3	−12.9	−8.0	8.22238	−388	−1
	27	−13.18	−0.52	+0.59	+151.4	−18.3	−5.4	8.21850	−383	+5
	28	−13.70	+0.19	+0.71	+133.1	−20.8	−2.5	8.21467	−370	+13
	29	−13.51	+0.84	+0.65	+112.3	−20.4	+0.4	8.21097	−348	+22
	30	−12.67	+1.32	+0.48	+91.9	−18.5	+1.9	8.20749	−310	+38
	31	−11.35	+1.62	+0.30	+73.4	−16.1	+2.4	8.20439	−258	+52
Aug.	1	−9.73		+0.17	+57.3		+2.4	8.20181		+77

Mondkrater Mösting A. 1931

Tag	$\alpha_☾ - \alpha_k$			$\delta_☾ - \delta_k$			log sin p_k		
	0ʰ Welt-Zeit								
1931	s	s	s	″	″	″			
Aug. 1	− 9.73	+1.79	+0.17	+57.3	−13.7	+2.4	8.20181	−181	+ 77
2	− 7.94	+1.87	+0.08	+43.6	−11.9	+1.8	8.20000	− 89	+ 92
3	− 6.07	+1.88	+0.01	+31.7	−11.0	+0.9	8.19911	+ 21	+110
4	− 4.19	+1.84	−0.04	+20.7	−10.9	+0.1	8.19932	+143	+122
5	− 2.35	+1.72	−0.12	+ 9.8	−11.7	−0.8	8.20075	+275	+132
6	− 0.63	+1.48	−0.24	− 1.9	−12.8	−1.1	8.20350	+401	+126
7	+ 0.85			−14.7			8.20751		
	s	s	s	″	″	″			
Aug. 22	−13.27	−1.09		+170.7	−14.1		8.22326	−488	
23	−14.36	−0.48	+0.61	+156.6	−19.4	−5.3	8.21838	−445	+ 43
24	−14.84	+0.25	+0.73	+137.2	−21.7	−2.3	8.21393	−393	+ 52
25	−14.59	+0.89	+0.64	+115.5	−21.4	+0.3	8.21000	−342	+ 51
26	−13.70	+1.36	+0.47	+ 94.1	−19.5	+1.9	8.20658	−290	+ 52
27	−12.34	+1.64	+0.28	+ 74.6	−17.1	+2.4	8.20368	−237	+ 53
28	−10.70	+1.80	+0.16	+ 57.5	−14.8	+2.3	8.20131	−178	+ 59
29	− 8.90	+1.87	+0.07	+ 42.7	−12.8	+2.0	8.19953	−111	+ 67
30	− 7.03	+1.89	+0.02	+ 29.9	−11.5	+1.3	8.19842	− 32	+ 79
31	− 5.14	+1.87	−0.02	+ 18.4	−10.8	+0.7	8.19810	+ 56	+ 88
Sept. 1	− 3.27	+1.79	−0.08	+ 7.6	−11.1	−0.3	8.19866	+159	+103
2	− 1.48	+1.66	−0.13	− 3.5	−11.5	−0.4	8.20025	+271	+112
3	+ 0.18	+1.39	−0.27	− 15.0	−12.5	−1.0	8.20296	+381	+110
4	+ 1.57	+0.98	−0.41	− 27.5	−12.8	−0.3	8.20677	+510	+129
5	+ 2.55			− 40.3			8.21187		
	s	s	s	″	″	″			
Sept. 19	−15.48	−0.73		+163.8	−21.3		8.22287	−598	
20	−16.21	+0.14	+0.87	+142.5	−23.8	−2.5	8.21689	−523	+ 75
21	−16.07	+0.89	+0.75	+118.7	−23.3	+0.5	8.21166	−438	+ 85
22	−15.18	+1.41	+0.52	+ 95.4	−20.9	+2.4	8.20728	−351	+ 87
23	−13.77	+1.72	+0.31	+ 74.5	−18.0	+2.9	8.20377	−266	+ 85
24	−12.05	+1.86	+0.14	+ 56.5	−15.4	+2.6	8.20111	−185	+ 81
25	−10.19	+1.90	+0.04	+ 41.1	−13.4	+2.0	8.19926	−112	+ 73
26	− 8.29	+1.90	0.00	+ 27.7	−12.0	+1.4	8.19814	− 43	+ 69
27	− 6.39	+1.85	−0.05	+ 15.7	−11.1	+0.9	8.19771	+ 28	+ 71
28	− 4.54	+1.77	−0.08	+ 4.6	−10.8	+0.3	8.19799	+100	+ 72
29	− 2.77	+1.66	−0.11	− 6.2	−10.9	−0.1	8.19899	+179	+ 79
30	− 1.11	+1.47	−0.19	− 17.1	−11.2	−0.3	8.20078	+265	+ 86
Okt. 1	+ 0.36	+1.17	−0.30	− 28.3	−11.3	−0.1	8.20343	+356	+ 91
2	+ 1.53	+0.74	−0.43	− 39.6	−10.6	+0.7	8.20699	+450	+ 94
3	+ 2.27	+0.24	−0.50	− 50.2	− 8.3	+2.3	8.21149	+540	+ 90
4	+ 2.51	−0.28	−0.52	− 58.5	− 3.5	+4.8	8.21689	+618	+ 78
5	+ 2.23			− 62.0			8.22307		
	s	s	s	″	″	″			
Okt. 19	−16.43	+1.29		+ 98.8	−23.5		8.21156	−491	
20	−15.14	+1.71	+0.42	+ 75.3	−19.7	+3.8	8.20665	−379	+112
21	−13.43	+1.90	+0.19	+ 55.6	−16.4	+3.3	8.20286	−266	+113
22	−11.53	+1.95	+0.05	+ 39.2	−13.8	+2.6	8.20020	−157	+109
23	− 9.58		−0.03	+ 25.4		+1.7	8.19863		+ 96

Tag	0h Welt-Zeit								
	$\alpha_{☾} - \alpha_k$			$\delta_{☾} - \delta_k$			log sin p_k		
1931	s	s	s	"	"	"			
Okt. 23	− 9.58	+1.92	−0.03	+25.4	−12.1	+1.7	8.19863	− 61	+ 96
24	− 7.66	+1.85	−0.07	+13.3	−11.0	+1.1	8.19802	+ 25	+ 86
25	− 5.81	+1.74	−0.11	+ 2.3	−10.7	+0.3	8.19827	+ 98	+ 73
26	− 4.07	+1.59	−0.15	− 8.4	−10.5	+0.2	8.19925	+161	+ 63
27	− 2.48	+1.39	−0.20	−18.9	−10.6	−0.1	8.20086	+221	+ 60
28	− 1.09	+1.12	−0.27	−29.5	−10.2	+0.4	8.20307	+277	+ 56
29	+ 0.03	+0.77	−0.35	−39.7	− 9.2	+1.0	8.20584	+333	+ 56
30	+ 0.80	+0.38	−0.39	−48.9	− 6.8	+2.4	8.20917	+391	+ 58
31	+ 1.18	+0.02	−0.36	−55.7	− 2.9	+3.9	8.21308	+450	+ 59
Nov. 1	+ 1.20	−0.25	−0.27	−58.6	+ 2.8	+5.7	8.21758	+503	+ 53
2	+ 0.95	−0.38	−0.13	−55.8	+ 9.6	+6.8	8.22261	+544	+ 41
3	+ 0.57			−46.2			8.22805		
	s	s	s	"	"	"			
Nov. 18	−12.50	+1.93		+38.9	−15.0		8.20330	−274	
19	−10.57	+1.94	+0.01	+23.9	−12.4	+2.6	8.20056	−145	+129
20	− 8.63	+1.88	−0.06	+11.5	−10.9	+1.5	8.19911	− 22	+123
21	− 6.75	+1.75	−0.13	+ 0.6	−10.1	+0.8	8.19889	+ 84	+106
22	− 5.00	+1.58	−0.17	− 9.5	−10.0	+0.1	8.19973	+175	+ 91
23	− 3.42	+1.35	−0.23	−19.5	−10.1	−0.1	8.20148	+246	+ 71
24	− 2.07	+1.04	−0.31	−29.6	− 9.7	+0.4	8.20394	+296	+ 50
25	− 1.03	+0.66	−0.38	−39.3	− 8.5	+1.2	8.20690	+330	+ 34
26	− 0.37	+0.26	−0.40	−47.8	− 5.8	+2.7	8.21020	+353	+ 23
27	− 0.11	−0.08	−0.34	−53.6	− 1.6	+4.2	8.21373	+367	+ 14
28	− 0.19	−0.26	−0.18	−55.2	+ 4.0	+5.6	8.21740	+377	+ 10
29	− 0.45	−0.28	−0.02	−51.2	+10.3	+6.3	8.22117	+385	+ 8
30	− 0.73	−0.19	+0.09	−40.9	+16.6	+6.3	8.22502	+389	+ 4
Dez. 1	− 0.92	−0.11	+0.08	−24.3	+22.0	+5.4	8.22891	+386	− 3
2	− 1.03			− 2.3			8.23277		
	s	s	s	"	"	"			
Dez. 18	− 7.27	+1.80		− 0.1	− 9.9		8.19984	+ 2	
19	− 5.47	+1.67	−0.13	−10.0	− 9.3	+0.6	8.19986	+132	+130
20	− 3.80	+1.44	−0.23	−19.3	− 9.3	0.0	8.20118	+247	+115
21	− 2.36	+1.13	−0.31	−28.6	− 9.3	0.0	8.20365	+335	+ 88
22	− 1.23	+0.71	−0.42	−37.9	− 8.5	+0.8	8.20700	+399	+ 64
23	− 0.52	+0.22	−0.49	−46.4	− 6.3	+2.2	8.21099	+430	+ 31
24	− 0.30	−0.23	−0.45	−52.7	− 1.9	+4.4	8.21529	+433	+ 3
25	− 0.53	−0.51	−0.28	−54.6	+ 4.4	+6.3	8.21962	+410	− 23
26	− 1.04	−0.56	−0.05	−50.2	+11.5	+7.1	8.22372	+371	− 39
27	− 1.60	−0.42	+0.14	−38.7	+18.3	+6.8	8.22743	+318	− 53
28	− 2.02	−0.24	+0.18	−20.4	+23.9	+5.6	8.23061	+261	− 57
29	− 2.26	−0.10	+0.14	+ 3.5	+27.7	+3.8	8.23322	+208	− 53
30	− 2.36	−0.08	+0.02	+31.2	+30.1	+2.4	8.23530	+156	− 52
31	− 2.44			+61.3			8.23686		

Jupitertrabanten 1931

Verfinsterungen: E. Eintritte, A. Austritte (in Welt-Zeit)

TRABANT I

Datum	h	m	
Jan. 2	12	58.4	E.
4	7	27.0	E.
6	1	55.7	E.
7	22	40.7	A.
9	17	9.5	A.
11	11	38.1	A.
13	6	6.9	A.
15	0	35.6	A.
16	19	4.4	A.
18	13	33.0	A.
20	8	1.8	A.
22	2	30.5	A.
23	20	59.4	A.
25	15	28.1	A.
27	9	56.9	A.
29	4	25.7	A.
30	22	54.5	A.
Febr. 1	17	23.3	A.
3	11	52.1	A.
5	6	20.9	A.
7	0	49.8	A.
8	19	18.5	A.
10	13	47.4	A.
12	8	16.2	A.
14	2	45.2	A.
15	21	14.0	A.
17	15	42.9	A.
19	10	11.7	A.
21	4	40.6	A.
22	23	9.4	A.
24	17	38.3	A.
26	12	7.2	A.
28	6	36.1	A.
März 2	1	4.9	A.
3	19	33.9	A.
5	14	2.7	A.
7	8	31.7	A.
9	3	0.5	A.
10	21	29.5	A.
12	15	58.3	A.
14	10	27.3	A.
16	4	56.1	A.
17	23	25.1	A.
19	17	53.9	A.
21	12	22.9	A.
23	6	51.7	A.
25	1	20.7	A.
26	19	49.5	A.

TRABANT I

Datum	h	m	
März 28	14	18.5	A.
30	8	47.3	A.
April 1	3	16.3	A.
2	21	45.1	A.
4	16	14.0	A.
6	10	42.9	A.
8	5	11.8	A.
9	23	40.6	A.
11	18	9.6	A.
13	12	38.4	A.
15	7	7.3	A.
17	1	36.2	A.
18	20	5.1	A.
20	14	33.9	A.
22	9	2.8	A.
24	3	31.6	A.
25	22	0.5	A.
27	16	29.3	A.
29	10	58.2	A.
Mai 1	5	27.0	A.
2	23	55.9	A.
4	18	24.7	A.
6	12	53.6	A.
8	7	22.3	A.
10	1	51.2	A.
11	20	20.0	A.
13	14	48.8	A.
15	9	17.6	A.
17	3	46.4	A.
18	22	15.1	A.
20	16	44.0	A.
22	11	12.7	A.
24	5	41.5	A.
26	0	10.2	A.
27	18	39.0	A.
29	13	7.7	A.
31	7	36.5	A.
Juni 2	2	5.2	A.
3	20	34.0	A.
5	15	2.7	A.
7	9	31.5	A.
9	4	0.1	A.
10	22	28.9	A.
12	16	57.5	A.
14	11	26.2	A.
16	5	54.9	A.
18	0	23.6	A.
19	18	52.2	A.

TRABANT I

Datum	h	m	
Juni 21	13	20.9	A.
23	7	49.5	A.
25	2	18.2	A.
26	20	46.8	A.
Aug. 13	13	20.2	E.
15	7	48.6	E.
17	2	17.1	E.
18	20	45.5	E.
20	15	13.9	E.
22	9	42.3	E.
24	4	10.8	E.
25	22	39.1	E.
27	17	7.6	E.
29	11	35.9	E.
31	6	4.3	E.
Sept. 2	0	32.7	E.
3	19	1.1	E.
5	13	29.4	E.
7	7	57.8	E.
9	2	26.2	E.
10	20	54.5	E.
12	15	22.9	E.
14	9	51.2	E.
16	4	19.6	E.
17	22	47.9	E.
19	17	16.2	E.
21	11	44.5	E.
23	6	12.9	E.
25	0	41.1	E.
26	19	9.5	E.
28	13	37.8	E.
30	8	6.1	E.
Okt. 2	2	34.4	E.
3	21	2.7	E.
5	15	31.0	E.
7	9	59.3	E.
9	4	27.6	E.
10	22	55.8	E.
12	17	24.1	E.
14	11	52.4	E.
16	6	20.7	E.
18	0	48.9	E.
19	19	17.2	E.
21	13	45.5	E.
23	8	13.7	E.
25	2	42.0	E.
26	21	10.2	E.
28	15	38.5	E.

TRABANT I

Datum	h	m	
Okt. 30	10	6.8	E.
Nov. 1	4	35.0	E.
2	23	3.3	E.
4	17	31.6	E.
6	11	59.8	E.
8	6	28.1	E.
10	0	56.3	E.
11	19	24.6	E.
13	13	52.8	E.
15	8	21.1	E.
17	2	49.3	E.
18	21	17.6	E.
20	15	45.9	E.
22	10	14.1	E.
24	4	42.4	E.
25	23	10.7	E.
27	17	39.0	E.
29	12	7.2	E.
Dez. 1	6	35.5	E.
3	1	3.8	E.
4	19	32.1	E.
6	14	0.4	E.
8	8	28.6	E.
10	2	57.0	E.
11	21	25.2	E.
13	15	53.6	E.
15	10	21.9	E.
17	4	50.2	E.
18	23	18.5	E.
20	17	46.8	E.
22	12	15.1	E.
24	6	43.5	E.
26	1	11.8	E.
27	19	40.2	E.
29	14	8.5	E.
31	8	37.0	E.

TRABANT II

Datum	h	m	
Jan. 3	5	46.3	E.
6	21	49.7	A.
10	11	7.1	A.
14	0	24.4	A.
17	13	41.8	A.
21	2	59.2	A.
24	16	16.5	A.
28	5	33.9	A.
31	18	51.4	A.
Febr. 4	8	8.8	A.

Verfinsterungen: E. Eintritte, A. Austritte (in Welt-Zeit)

TRABANT II

Datum	h m	
Febr. 7	21 26.3	A.
11	10 43.8	A.
15	0 1.3	A.
18	13 18.8	A.
22	2 36.4	A.
25	15 53.9	A.
März 1	5 11.5	A.
4	18 29.1	A.
8	7 46.8	A.
11	21 4.4	A.
15	10 22.1	A.
18	23 39.8	A.
22	12 57.5	A.
26	2 15.3	A.
29	15 33.0	A.
April 2	4 50.8	A.
5	18 8.6	A.
9	7 26.4	A.
12	20 44.3	A.
16	10 2.2	A.
19	23 20.1	A.
23	12 38.0	A.
27	1 55.9	A.
30	15 13.9	A.
Mai 4	4 31.9	A.
7	17 49.9	A.
11	7 7.9	A.
14	20 25.9	A.
18	9 44.0	A.
21	23 2.1	A.
25	12 20.3	A.
29	1 38.3	A.
Juni 1	14 56.6	A.
5	4 14.6	A.
8	17 32.9	A.
12	6 51.0	A.
15	20 9.4	A.
19	9 27.4	A.
22	22 45.9	A.
26	12 3.9	A.
Aug. 15	3 25.9	E.
18	16 44.6	E.
22	6 2.5	E.
25	19 21.1	E.
29	8 39.0	E.
Sept. 1	21 57.7	E.
5	11 15.5	E.
9	0 34.2	E.
12	13 51.9	E.

TRABANT II

Datum	h m	
Sept. 16	3 10.6	E.
19	16 28.3	E.
23	5 47.1	E.
26	19 4.7	E.
30	8 23.3	E.
Okt. 3	21 41.0	E.
7	10 59.6	E.
11	0 17.3	E.
14	13 35.8	E.
18	2 53.4	E.
21	16 11.9	E.
25	5 29.5	E.
28	18 47.9	E.
Nov. 1	8 5.4	E.
4	21 23.7	E.
8	10 41.2	E.
11	23 59.5	E.
15	13 17.0	E.
19	2 35.2	E.
22	15 52.6	E.
26	5 10.7	E.
29	18 28.1	E.
Dez. 3	7 46.2	E.
6	21 3.5	E.
10	10 21.5	E.
13	23 38.9	E.
17	12 56.8	E.
21	2 14.1	E.
24	15 31.9	E.
28	4 49.2	E.
31	18 7.0	E.

TRABANT III

Datum	h m	
Jan. 2	20 25.7	E.
10	3 45.8	A.
17	7 46.7	A.
24	11 47.3	A.
31	15 48.3	A.
Febr. 7	19 48.6	A.
14	20 24.3	E.
14	23 48.8	A.
22	0 24.0	E.
22	3 49.3	A.
März 1	4 24.1	E.
1	7 50.0	A.
8	8 25.0	E.
8	11 51.6	A.
15	12 25.4	E.
15	15 52.7	A.
März 22	16 26.1	E.
22	19 53.9	A.
29	20 25.9	E.
29	23 54.3	A.
April 6	0 25.6	E.
6	3 54.6	A.
13	4 25.5	E.
13	7 55.1	A.
20	8 25.6	E.
20	11 55.7	A.
27	12 26.4	E.
27	15 57.1	A.
Mai 4	16 26.6	E.
4	19 57.9	A.
11	20 26.9	E.
11	23 58.6	A.
19	0 26.4	E.
19	3 58.6	A.
26	4 25.7	E.
26	7 58.3	A.
Juni 2	11 58.2	A.
9	15 58.2	A.
16	19 58.9	A.
23	23 58.8	A.
Aug. 13	0 17.2	E.
20	4 16.0	E.
27	8 14.1	E.
Sept. 3	12 11.9	E.
10	16 9.9	E.
17	20 8.1	E.
25	0 6.9	E.
25	3 45.1	A.
Okt. 2	4 5.1	E.
2	7 43.6	A.
9	8 3.2	E.
9	11 41.8	A.
16	12 0.7	E.
16	15 39.5	A.
23	15 58.0	E.
23	19 36.9	A.
30	19 55.7	E.
30	23 34.7	A.
Nov. 6	23 53.5	E.
7	3 32.7	A.
14	3 52.0	E.
14	7 31.3	A.
21	7 49.9	E.
21	11 29.4	A.
28	11 48.0	E.
Nov. 28	15 27.4	A.
Dez. 5	15 45.4	E.
5	19 24.9	A.
12	19 42.8	E.
12	23 22.3	A.
19	23 40.6	E.
20	3 20.1	A.
27	3 38.6	E.
27	7 18.2	A.

TRABANT IV

Datum	h m	
Jan. 4	7 0.7	E.
21	1 1.6	E.
21	4 4.2	A.
Febr. 6	19 3.3	E.
6	22 16.3	A.
23	13 6.6	E.
23	16 29.3	A.
März 12	7 9.5	E.
12	10 41.3	A.
29	1 13.1	E.
29	4 53.0	A.
April 14	19 17.3	E.
14	23 4.9	A.
Mai 1	13 20.6	E.
1	17 15.6	A.
18	7 23.9	E.
18	11 25.5	A.
Juni 4	1 27.6	E.
4	5 35.4	A.
20	19 30.1	E.
20	23 43.7	A.
Aug. 26	19 36.9	E.
27	0 9.2	A.
Sept. 12	13 37.8	E.
12	18 13.9	A.
29	7 37.7	E.
29	12 17.2	A.
Okt. 16	1 37.4	E.
16	6 19.8	A.
Nov. 1	19 37.1	E.
2	0 22.3	A.
18	13 36.2	E.
18	18 23.7	A.
Dez. 5	7 35.6	E.
5	12 25.0	A.
22	1 35.4	E.
22	6 26.4	A.

0h Welt-Zeit	α	β	p_a	a	b	U'	B'	P'
1931	"	"	"	"	"	°	°	°
Jan. 1	15.13	13.85	0.00	34.08	+14.33	118.395	+24.751	+12.938
5	15.13	13.84	0.00	34.07	14.27	118.526	24.729	12.994
9	15.13	13.84	0.00	34.08	14.22	118.656	24.706	13.049
13	15.14	13.85	0.00	34.10	14.17	118.787	24.684	13.105
17	15.15	13.86	0.00	34.13	14.13	118.917	24.661	13.160
21	15.17	13.87	0.00	34.17	+14.09	119.048	+24.639	+13.215
25	15.19	13.89	0.00	34.23	14.05	119.178	24.616	13.270
29	15.22	13.92	0.00	34.30	14.02	119.309	24.594	13.325
Febr. 2	15.26	13.95	—0.01	34.38	14.00	119.439	24.571	13.380
6	15.30	13.98	0.01	34.47	13.98	119.570	24.548	13.435
10	15.35	14.02	—0.01	34.58	+13.96	119.700	+24.525	+13.489
14	15.40	14.07	0.01	34.70	13.95	119.830	24.501	13.544
18	15.46	14.12	0.01	34.83	13.95	119.960	24.478	13.599
22	15.52	14.17	0.02	34.97	13.95	120.090	24.455	13.653
26	15.59	14.23	0.02	35.12	13.96	120.220	24.432	13.708
März 2	15.67	14.30	—0.02	35.29	+13.97	120.350	+24.408	+13.763
6	15.75	14.37	0.02	35.47	13.99	120.480	24.385	13.817
10	15.83	14.45	0.03	35.66	14.01	120.610	24.361	13.871
14	15.92	14.53	0.03	35.86	14.04	120.740	24.337	13.925
18	16.01	14.61	0.03	36.06	14.08	120.870	24.313	13.979
22	16.10	14.69	—0.03	36.27	+14.12	120.999	+24.289	+14.033
26	16.20	14.78	0.04	36.49	14.17	121.129	24.265	14.087
30	16.30	14.87	0.04	36.72	14.22	121.259	24.240	14.141
April 3	16.40	14.96	0.04	36.96	14.28	121.389	24.216	14.195
7	16.51	15.06	0.04	37.20	14.34	121.518	24.192	14.249
11	16.62	15.16	—0.04	37.45	+14.41	121.648	+24.167	+14.303
15	16.73	15.26	0.04	37.70	14.48	121.777	24.142	14.356
19	16.84	15.36	0.04	37.95	14.56	121.907	24.117	14.410
23	16.96	15.47	0.04	38.21	14.65	122.036	24.092	14.463
27	17.07	15.57	0.04	38.46	14.74	122.166	24.067	14.517
Mai 1	17.19	15.68	—0.04	38.72	+14.84	122.295	+24.042	+14.570
5	17.30	15.78	0.04	38.98	14.94	122.425	24.016	14.623
9	17.42	15.88	0.04	39.23	15.04	122.554	23.991	14.676
13	17.53	15.98	0.03	39.48	15.15	122.684	23.965	14.729
17	17.63	16.08	0.03	39.72	15.26	122.813	23.939	14.782
21	17.74	16.18	—0.03	39.95	+15.37	122.942	+23.913	+14.835
25	17.84	16.27	0.03	40.18	15.48	123.071	23.887	14.888
29	17.93	16.36	0.02	40.40	15.60	123.200	23.861	14.941
Juni 2	18.02	16.44	0.02	40.60	15.71	123.329	23.835	14.993
6	18.10	16.52	0.02	40.79	15.82	123.458	23.809	15.046
10	18.18	16.59	—0.02	40.96	+15.93	123.587	+23.783	+15.098
14	18.25	16.66	0.01	41.12	16.04	123.716	23.757	15.150
18	18.31	16.72	0.01	41.26	16.14	123.845	23.730	15.202
22	18.37	16.77	—0.01	41.38	16.24	123.974	23.703	15.254
26	18.42	16.81	0.00	41.49	16.33	124.102	23.676	15.306
30	18.45	16.84	0.00	41.58	16.42	124.231	23.649	15.358
Juli 4	18.48	16.87	0.00	41.64	+16.50	124.360	+23.622	+15.410

0^h Welt-Zeit		α	β	p_a	a	b	U'	B'	P'
1931									
Juli	4	18.″48	16.″87	0.″00	41.″64	+16.″50	124.°360	+23.°622	+15.°410
	8	18.50	16.89	0.00	41.68	16.57	124.489	23.595	15.462
	12	18.51	16.90	0.00	41.70	16.63	124.617	23.568	15.514
	16	18.51	16.90	0.00	41.70	16.68	124.746	23.541	15.566
	20	18.50	16.89	0.00	41.67	16.73	124.874	23.514	15.617
	24	18.48	16.87	0.00	41.62	+16.77	125.003	+23.487	+15.668
	28	18.45	16.85	0.00	41.55	16.80	125.131	23.459	15.720
Aug.	1	18.41	16.82	+0.01	41.46	16.82	125.260	23.431	15.771
	5	18.36	16.78	0.01	41.35	16.83	125.388	23.403	15.823
	9	18.30	16.73	0.01	41.22	16.82	125.517	23.375	15.874
	13	18.24	16.67	+0.01	41.08	+16.80	125.645	+23.347	+15.925
	17	18.17	16.60	0.02	40.92	16.77	125.774	23.319	15.976
	21	18.09	16.53	0.02	40.74	16.73	125.902	23.291	16.027
	25	18.00	16.45	0.02	40.55	16.68	126.030	23.263	16.077
	29	17.91	16.37	0.02	40.34	16.63	126.158	23.234	16.128
Sept.	2	17.81	16.28	+0.03	40.12	+16.57	126.286	+23.205	+16.178
	6	17.71	16.19	0.03	39.89	16.50	126.414	23.176	16.229
	10	17.61	16.10	0.03	39.65	16.42	126.542	23.147	16.279
	14	17.50	16.00	0.03	39.41	16.33	126.670	23.118	16.330
	18	17.39	15.90	0.04	39.16	16.23	126.798	23.089	16.380
	22	17.28	15.80	+0.04	38.91	+16.13	126.925	+23.060	+16.430
	26	17.17	15.70	0.04	38.66	16.03	127.053	23.031	16.480
	30	17.05	15.59	0.04	38.40	15.92	127.181	23.002	16.530
Okt.	4	16.94	15.49	0.04	38.14	15.81	127.309	22.973	16.580
	8	16.82	15.38	0.04	37.89	15.69	127.437	22.943	16.630
	12	16.71	15.28	+0.04	37.64	+15.57	127.564	+22.913	+16.680
	16	16.60	15.18	0.04	37.39	15.45	127.692	22.883	16.730
	20	16.50	15.08	0.04	37.15	15.33	127.819	22.853	16.779
	24	16.39	14.98	0.04	36.91	15.21	127.947	22.823	16.829
	28	16.28	14.88	0.04	36.68	15.08	128.074	22.793	16.878
Nov.	1	16.18	14.79	+0.03	36.45	+14.96	128.202	+22.763	+16.928
	5	16.08	14.70	0.03	36.23	14.83	128.329	22.733	16.977
	9	15.99	14.61	0.03	36.02	14.71	128.457	22.703	17.026
	13	15.90	14.53	0.03	35.82	14.58	128.584	22.672	17.075
	17	15.82	14.45	0.03	35.63	14.46	128.711	22.641	17.124
	21	15.74	14.38	+0.02	35.45	+14.34	128.838	+22.610	+17.173
	25	15.67	14.31	0.02	35.28	14.22	128.965	22.579	17.221
	29	15.60	14.24	0.02	35.12	14.10	129.092	22.548	17.270
Dez.	3	15.53	14.18	0.02	34.98	13.99	129.219	22.517	17.319
	7	15.47	14.12	0.01	34.84	13.88	129.346	22.486	17.367
	11	15.41	14.07	+0.01	34.72	+13.77	129.473	+22.455	+17.416
	15	15.36	14.02	0.01	34.61	13.66	129.600	22.424	17.464
	19	15.32	13.98	0.01	34.51	13.55	129.727	22.393	17.513
	23	15.28	13.94	+0.01	34.42	13.45	129.854	22.362	17.561
	27	15.25	13.91	0.00	34.35	13.35	129.980	22.330	17.609
	31	15.22	13.88	0.00	34.29	13.25	130.107	22.298	17.657
	35	15.20	13.86	0.00	34.24	+13.16	130.234	+22.266	+17.704

Saturn und Saturnsring 1931

0h Welt-Zeit	U		B		P	
1931						
Jan. 1	159°.962	254	+24°.874	50	+6°.901	10
3	160.216	255	24.824	50	6.911	10
5	160.471	255	24.774	51	6.921	10
7	160.726	254	24.723	52	6.931	9
9	160.980	254	24.671	52	6.940	10
11	161.234	253	+24.619	52	+6.950	9
13	161.487	252	24.567	53	6.959	9
15	161.739	251	24.514	53	6.968	9
17	161.990	250	24.461	53	6.977	9
19	162.240	249	24.408	53	6.986	8
21	162.489	247	+24.355	54	+6.994	8
23	162.736	246	24.301	54	7.002	8
25	162.982	244	24.247	53	7.010	8
27	163.226	241	24.194	54	7.018	7
29	163.467	240	24.140	54	7.025	8
31	163.707	237	+24.086	54	+7.033	7
Febr. 2	163.944	235	24.032	53	7.040	7
4	164.179	232	23.979	53	7.047	7
6	164.411	230	23.926	53	7.054	6
8	164.641	227	23.873	53	7.060	6
10	164.868	224	+23.820	52	+7.066	6
12	165.092	220	23.768	52	7.072	6
14	165.312	217	23.716	52	7.078	6
16	165.529	214	23.664	51	7.084	5
18	165.743	210	23.613	51	7.089	5
20	165.953	206	+23.562	50	+7.094	5
22	166.159	202	23.512	49	7.099	5
24	166.361	199	23.463	48	7.104	5
26	166.560	195	23.415	48	7.109	5
28	166.755	190	23.367	47	7.114	4
März 2	166.945	185	+23.320	46	+7.118	4
4	167.130	180	23.274	45	7.122	4
6	167.310	176	23.229	44	7.126	4
8	167.486	171	23.185	43	7.130	4
10	167.657	167	23.142	42	7.134	3
12	167.824	161	+23.100	41	+7.137	3
14	167.985	156	23.059	40	7.140	3
16	168.141	150	23.019	38	7.143	3
18	168.291	145	22.981	37	7.146	3
20	168.436	140	22.944	36	7.149	2
22	168.576	134	+22.908	34	+7.151	3
24	168.710	128	22.874	33	7.154	2
26	168.838	122	22.841	32	7.156	2
28	168.960	117	22.809	30	7.158	2
30	169.077	111	22.779	28	7.160	2
April 1	169.188	104	22.751	27	7.162	2
3	169.292		+22.724		+7.164	

0h Welt-Zeit	U		B		P	
1931						
April 3	169°.292	98	+22°.724	25	+7°.164	2
5	169.390	92	22.699	24	7.166	1
7	169.482	85	22.675	22	7.167	2
9	169.567	79	22.653	20	7.169	1
11	169.646	73	22.633	18	7.170	1
13	169.719	66	+22.615	17	+7.171	1
15	169.785	60	22.598	15	7.172	1
17	169.845	53	22.583	13	7.173	1
19	169.898	46	22.570	11	7.174	1
21	169.944	39	22.559	9	7.175	0
23	169.983	32	+22.550	7	+7.175	1
25	170.015	26	22.543	5	7.176	0
27	170.041	19	22.538	3	7.176	0
29	170.060	12	22.535	2	7.176	0
Mai 1	170.072	5	22.533	0	7.176	0
3	170.077	1	+22.533	2	+7.176	0
5	170.076	8	22.535	4	7.176	0
7	170.068	14	22.539	7	7.176	0
9	170.054	21	22.546	8	7.176	0
11	170.033	28	22.554	10	7.176	0
13	170.005	35	+22.564	12	+7.176	0
15	169.970	41	22.576	13	7.176	1
17	169.929	48	22.589	15	7.175	0
19	169.881	54	22.604	18	7.175	1
21	169.827	60	22.622	19	7.174	1
23	169.767	66	+22.641	21	+7.173	1
25	169.701	73	22.662	23	7.172	1
27	169.628	78	22.685	24	7.171	1
29	169.550	84	22.709	25	7.170	1
31	169.466	89	22.734	27	7.169	2
Juni 2	169.377	95	+22.761	29	+7.167	1
4	169.282	100	22.790	30	7.166	2
6	169.182	105	22.820	31	7.164	1
8	169.077	110	22.851	32	7.163	2
10	168.967	115	22.883	34	7.161	2
12	168.852	119	+22.917	35	+7.159	2
14	168.733	124	22.952	36	7.157	2
16	168.609	128	22.988	37	7.155	2
18	168.481	132	23.025	38	7.153	2
20	168.349	135	23.063	39	7.151	2
22	168.214	138	+23.102	39	+7.149	3
24	168.076	141	23.141	40	7.146	3
26	167.935	144	23.181	41	7.143	3
28	167.791	146	23.222	41	7.140	3
30	167.645	148	23.263	42	7.137	3
Juli 2	167.497	150	23.305	42	7.134	3
4	167.347		+23.347		+7.131	

0h Welt-Zeit 1931	U	Δ	B	Δ	P	Δ
Juli 2	167°.497	150	+23°.305	42	+7°.134	3
4	167.347	152	23.347	42	7.131	3
6	167.195	153	23.389	43	7.128	3
8	167.042	154	23.432	43	7.125	3
10	166.888	155	23.475	43	7.122	3
12	166.733	155	+23.518	42	+7.119	3
14	166.578	155	23.560	42	7.116	4
16	166.423	155	23.602	42	7.112	3
18	166.268	154	23.644	42	7.109	4
20	166.114	153	23.686	41	7.105	3
22	165.961	152	+23.727	41	+7.102	4
24	165.809	150	23.768	40	7.098	4
26	165.659	148	23.808	40	7.094	4
28	165.511	146	23.848	39	7.090	4
30	165.365	143	23.887	38	7.086	3
Aug. 1	165.222	141	+23.925	37	+7.083	4
3	165.081	138	23.962	37	7.079	3
5	164.943	134	23.999	36	7.076	4
7	164.809	131	24.035	35	7.072	3
9	164.678	127	24.070	33	7.069	4
11	164.551	123	+24.103	32	+7.065	3
13	164.428	118	24.135	31	7.062	3
15	164.310	113	24.166	30	7.059	3
17	164.197	109	24.196	29	7.056	3
19	164.088	104	24.225	28	7.053	3
21	163.984	98	+24.253	26	+7.050	3
23	163.886	93	24.279	25	7.047	2
25	163.793	87	24.304	24	7.045	3
27	163.706	82	24.328	22	7.042	2
29	163.624	76	24.350	21	7.040	2
31	163.548	69	+24.371	19	+7.038	2
Sept. 2	163.479	63	24.390	17	7.036	2
4	163.416	57	24.407	16	7.034	2
6	163.359	50	24.423	14	7.032	1
8	163.309	44	24.437	13	7.031	1
10	163.265	37	+24.450	12	+7.030	1
12	163.228	30	24.462	10	7.029	1
14	163.198	23	24.472	8	7.028	1
16	163.175	16	24.480	7	7.027	0
18	163.159	9	24.487	5	7.027	0
20	163.150	3	+24.492	4	+7.027	0
22	163.147	5	24.496	2	7.027	0
24	163.152	12	24.498	0	7.027	0
26	163.164	19	24.498	2	7.027	1
28	163.183	25	24.496	3	7.028	1
30	163.208	33	24.493	5	7.029	1
Okt. 2	163.241	40	+24.488	6	+7.030	2
4	163.281	47	24.482	8	7.032	1
6	163.328	54	24.474	9	7.033	2
8	163.382	61	24.465	11	7.035	2
10	163.443	68	24.454	13	7.037	2
12	163.511	74	+24.441	15	+7.039	2
14	163.585	81	24.426	16	7.041	3
16	163.666	88	24.410	18	7.044	3
18	163.754	94	24.392	20	7.047	3
20	163.848	101	24.372	21	7.050	3
22	163.949	107	+24.351	22	+7.053	3
24	164.056	113	24.329	24	7.056	3
26	164.169	120	24.305	26	7.059	4
28	164.289	125	24.279	27	7.063	4
30	164.414	131	24.252	28	7.067	4
Nov. 1	164.545	137	+24.224	30	+7.071	4
3	164.682	143	24.194	32	7.075	4
5	164.825	148	24.162	33	7.079	4
7	164.973	154	24.129	35	7.083	4
9	165.127	159	24.094	36	7.087	4
11	165.286	164	+24.058	38	+7.091	4
13	165.450	169	24.020	39	7.095	4
15	165.619	174	23.981	41	7.099	5
17	165.793	179	23.940	42	7.104	4
19	165.972	183	23.898	43	7.108	5
21	166.155	188	+23.855	45	+7.113	4
23	166.343	192	23.810	46	7.117	5
25	166.535	196	23.764	48	7.122	4
27	166.731	200	23.716	49	7.126	5
29	166.931	204	23.667	50	7.131	4
Dez. 1	167.135	207	+23.617	51	+7.135	5
3	167.342	211	23.566	52	7.140	4
5	167.553	214	23.514	54	7.144	5
7	167.767	217	23.460	55	7.149	4
9	167.984	220	23.405	56	7.153	5
11	168.204	223	+23.349	58	+7.158	4
13	168.427	225	23.291	58	7.162	4
15	168.652	228	23.233	59	7.166	4
17	168.880	230	23.174	60	7.170	4
19	169.110	232	23.114	61	7.174	4
21	169.342	234	+23.053	62	+7.178	4
23	169.576	236	22.991	63	7.182	4
25	169.812	238	22.928	64	7.186	3
27	170.050	239	22.864	65	7.189	4
29	170.289	240	22.799	65	7.193	3
31	170.529	242	22.734	66	7.196	3
33	170.771		+22.668		+7.199	

Saturnstrabanten 1931

MIMAS

0h Welt-Zeit	L	M	log $\frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta}$ sin B
1931				
März 28	180°.597	342°.35	1.39697	+ 9″.67
30	224.567	24.32	1.39834	9.69
April 1	268.537	66.29	1.39972	9.71
3	312.507	108.26	1.40112	9.73
5	356.478	150.23	1.40253	9.75
7	40.448	192.20	1.40395	+ 9.77
9	84.418	234.17	1.40538	9.79
11	128.388	276.14	1.40683	9.81
13	172.359	318.11	1.40828	9.83
15	216.329	0.08	1.40973	9.86
17	260.299	42.05	1.41119	+ 9.89
19	304.269	84.02	1.41265	9.92
21	348.240	125.99	1.41411	9.95
23	32.210	167.96	1.41557	9.98
25	76.180	209.93	1.41703	10.01
27	120.150	251.90	1.41848	+10.04
29	164.121	293.87	1.41993	10.07
Mai 1	208.091	335.84	1.42137	10.10
3	252.061	17.81	1.42280	10.13
5	296.031	59.78	1.42422	10.17
7	340.002	101.75	1.42562	+10.21
9	23.972	143.72	1.42701	10.25
11	67.942	185.69	1.42839	10.28
13	111.912	227.66	1.42975	10.32
15	155.882	269.63	1.43108	10.35
17	199.852	311.60	1.43240	+10.39
19	243.823	353.57	1.43369	10.43
21	287.793	35.54	1.43495	10.47
23	331.763	77.51	1.43619	10.51
25	15.733	119.48	1.43739	10.55
27	59.703	161.45	1.43857	+10.58
29	103.673	203.42	1.43971	10.62
31	147.643	245.39	1.44082	10.66
Juni 2	191.613	287.36	1.44189	10.69
4	235.583	329.33	1.44292	10.73
6	279.553	11.30	1.44391	+10.77
8	323.523	53.27	1.44487	10.81
10	7.493	95.24	1.44578	10.85
12	51.463	137.21	1.44664	10.89
14	95.433	179.18	1.44746	+10.92

MIMAS

0h Welt-Zeit	L	M	log $\frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta}$ sin B
1931				
Juni 14	95°.433	179°.18	1.44746	+10″.92
16	139.403	221.15	1.44824	10.96
18	183.373	263.12	1.44896	10.99
20	227.344	305.09	1.44963	11.03
22	271.314	347.06	1.45026	11.06
24	315.284	29.03	1.45083	+11.10
26	359.254	71.00	1.45135	11.13
28	43.224	112.97	1.45181	11.16
30	87.194	154.94	1.45222	11.19
Juli 2	131.164	196.91	1.45258	11.22
4	175.134	238.88	1.45288	+11.25
6	219.104	280.85	1.45312	11.28
8	263.074	322.82	1.45331	11.30
10	307.044	4.79	1.45344	11.32
12	351.014	46.76	1.45351	11.34
14	34.984	88.73	1.45352	+11.36
16	78.954	130.70	1.45348	11.38
18	122.924	172.67	1.45338	11.40
20	166.894	214.64	1.45322	11.41
22	210.864	256.61	1.45301	11.42
24	254.833	298.58	1.45273	+11.43
26	298.803	340.55	1.45240	11.44
28	342.773	22.52	1.45202	11.45
30	26.743	64.49	1.45158	11.45
Aug. 1	70.713	106.46	1.45109	11.46
3	114.682	148.43	1.45054	+11.46
5	158.652	190.40	1.44995	11.46
7	202.622	232.37	1.44930	11.45
9	246.592	274.34	1.44860	11.45
11	290.561	316.31	1.44785	11.45
13	334.531	358.28	1.44705	+11.45
15	18.501	40.25	1.44621	11.44
17	62.471	82.22	1.44532	11.43
19	106.441	124.19	1.44439	11.42
21	150.411	166.16	1.44341	11.41
23	194.381	208.13	1.44240	+11.39
25	238.350	250.10	1.44135	11.37
27	282.320	292.07	1.44026	11.35
29	326.290	334.04	1.43913	11.33
31	10.260	16.01	1.43797	+11.31

MIMAS

0h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
Aug. 31	10.260	16.01	1.43797	+11.31
Sept. 2	54.230	57.98	1.43678	11.29
4	98.199	99.95	1.43556	11.27
6	142.169	141.92	1.43431	11.25
8	186.139	183.89	1.43304	11.22
10	230.109	225.86	1.43174	+11.19
12	274.078	267.83	1.43041	11.16
14	318.048	309.80	1.42907	11.13
16	2.018	351.77	1.42770	11.10
18	45.988	33.74	1.42632	11.07
20	89.957	75.71	1.42493	+11.04
22	133.927	117.67	1.42352	11.01
24	177.897	159.64	1.42210	10.97
26	221.867	201.61	1.42066	10.93
28	265.836	243.58	1.41923	10.89
30	309.806	285.55	1.41778	+10.85
Okt. 2	353.776	327.52	1.41633	10.81
4	37.746	9.49	1.41488	10.77
6	81.715	51.46	1.41342	10.73
8	125.685	93.43	1.41197	10.69
10	169.655	135.40	1.41052	+10.65
12	213.624	177.37	1.40907	10.61
14	257.594	219.34	1.40762	10.57
16	301.563	261.31	1.40619	10.53
18	345.533	303.28	1.40476	10.49
20	29.503	345.25	1.40334	+10.45
22	73.472	27.22	1.40194	10.40
24	117.442	69.19	1.40055	10.36
26	161.412	111.16	1.39917	10.32
28	205.381	153.13	1.39781	10.27
30	249.351	195.10	1.39646	+10.23
Nov. 1	293.320	237.07	1.39513	10.19
3	337.290	279.04	1.39382	10.15
5	21.259	321.01	1.39253	10.10
7	65.229	2.98	1.39127	10.06
9	109.198	44.94	1.39003	+10.02
11	153.168	86.91	1.38881	9.97
13	197.137	128.88	1.38761	9.93
15	241.107	170.85	1.38644	9.89
17	285.076	212.82	1.38530	+ 9.85

ENCELADUS

0h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
März 28	79.140	115.0	1.50518	+12.41
30	244.603	279.7	1.50655	12.44
April 1	50.067	84.5	1.50793	12.46
3	215.531	249.3	1.50933	12.49
5	20.995	54.1	1.51074	12.51
7	186.459	218.9	1.51216	+12.54
9	351.923	23.7	1.51359	12.57
11	157.387	188.5	1.51504	12.60
13	322.850	353.3	1.51649	12.63
15	128.314	158.0	1.51794	12.66
17	293.778	322.8	1.51940	+12.69
19	99.241	127.6	1.52086	12.73
21	264.705	292.4	1.52232	12.77
23	70.169	97.2	1.52378	12.81
25	235.633	262.0	1.52524	12.85
27	41.097	66.8	1.52669	+12.89
29	206.560	231.6	1.52814	12.93
Mai 1	12.024	36.3	1.52958	12.97
3	177.488	201.1	1.53101	13.01
5	342.951	5.9	1.53243	13.05
7	148.415	170.7	1.53383	+13.10
9	313.879	335.5	1.53522	13.15
11	119.343	140.3	1.53660	13.20
13	284.806	305.1	1.53796	13.24
15	90.270	109.9	1.53929	13.29
17	255.733	274.6	1.54061	+13.34
19	61.197	79.4	1.54190	13.38
21	226.660	244.2	1.54316	13.43
23	32.124	49.0	1.54440	13.48
25	197.587	213.8	1.54560	13.53
27	3.050	18.6	1.54678	+13.57
29	168.514	183.4	1.54792	13.62
31	333.977	348.2	1.54903	13.67
Juni 2	139.440	152.9	1.55010	13.72
4	304.904	317.7	1.55113	13.77
6	110.367	122.5	1.55212	+13.82
8	275.831	287.3	1.55308	13.87
10	81.294	92.1	1.55399	13.92
12	246.757	256.9	1.55485	13.97
14	52.221	61.7	1.55567	+14.02

ENCELADUS

0^h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
Juni 14	52°.221	61°.7	1.55567	+14".02
16	217.684	226.5	1.55645	14.07
18	23.147	31.2	1.55717	14.12
20	188.611	196.0	1.55784	14.16
22	354.074	0.8	1.55847	14.20
24	159.538	165.6	1.55904	+14.24
26	325.001	330.4	1.55956	14.28
28	130.464	135.2	1.56002	14.32
30	295.927	300.0	1.56043	14.36
Juli 2	101.391	104.8	1.56079	14.40
4	266.854	269.5	1.56109	+14.43
6	72.317	74.3	1.56133	14.46
8	237.780	239.1	1.56152	14.49
10	43.244	43.9	1.56165	14.52
12	208.707	208.7	1.56172	14.55
14	14.170	13.5	1.56173	+14.57
16	179.633	178.3	1.56169	14.59
18	345.097	343.1	1.56159	14.61
20	150.560	147.8	1.56143	14.63
22	316.023	312.6	1.56122	14.65
24	121.486	117.4	1.56094	+14.67
26	286.950	282.2	1.56061	14.68
28	92.413	87.0	1.56023	14.69
30	257.876	251.8	1.55979	14.69
Aug. 1	63.339	56.6	1.55930	14.69
3	228.802	221.4	1.55875	+14.70
5	34.265	26.1	1.55816	14.70
7	199.728	190.9	1.55751	14.69
9	5.191	355.7	1.55681	14.69
11	170.654	160.5	1.55606	14.68
13	336.117	325.3	1.55526	+14.68
15	141.580	130.1	1.55442	14.67
17	307.043	294.9	1.55353	14.66
19	112.506	99.7	1.55260	14.64
21	277.969	264.4	1.55162	14.62
23	83.432	69.2	1.55061	+14.60
25	248.895	234.0	1.54956	14.58
27	54.358	38.8	1.54847	14.56
29	219.821	203.6	1.54734	14.54
31	25.284	8.4	1.54618	+14.51

ENCELADUS

0^h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
Aug. 31	25°.284	8°.4	1.54618	+14".51
Sept. 2	190.747	173.2	1.54499	14.48
4	356.210	338.0	1.54377	14.45
6	161.673	142.8	1.54252	14.42
8	327.135	307.5	1.54125	14.39
10	132.598	112.3	1.53995	+14.35
12	298.061	277.1	1.53862	14.31
14	103.524	81.9	1.53728	14.27
16	268.987	246.7	1.53591	14.23
18	74.450	51.5	1.53453	14.19
20	239.912	216.3	1.53314	+14.15
22	45.375	21.0	1.53173	14.11
24	210.838	185.8	1.53031	14.07
26	16.301	350.6	1.52887	14.02
28	181.763	155.4	1.52744	13.97
30	347.226	320.2	1.52599	+13.92
Okt. 2	152.689	125.0	1.52454	13.87
4	318.152	289.8	1.52309	13.82
6	123.614	94.6	1.52163	13.77
8	289.077	259.3	1.52018	13.72
10	94.540	64.1	1.51873	+13.67
12	260.003	228.9	1.51728	13.62
14	65.465	33.7	1.51583	13.57
16	230.928	198.5	1.51440	13.51
18	36.391	3.3	1.51297	13.46
20	201.853	168.1	1.51155	+13.40
22	7.316	332.9	1.51015	13.35
24	172.778	137.7	1.50876	13.30
26	338.241	302.4	1.50738	13.24
28	143.703	107.2	1.50602	13.19
30	309.166	272.0	1.50467	+13.13
Nov. 1	114.628	76.8	1.50334	13.08
3	280.091	241.6	1.50203	13.02
5	85.553	46.4	1.50074	12.97
7	251.016	211.2	1.49948	12.91
9	56.478	15.9	1.49824	+12.86
11	221.941	180.7	1.49702	12.80
13	27.403	345.5	1.49582	12.75
15	192.866	150.3	1.49465	12.69
17	358.328	315.1	1.49351	+12.64

TETHYS

0h Welt-Zeit	L	M	log a(Δ)/Δ	a(Δ)/Δ sin B
1931				
März 28	325°339		1.59787	+15"37
30	346.736		1.59924	15.40
April 1	8.132		1.60062	15.43
3	29.529		1.60202	15.46
5	50.925		1.60343	15.49
7	72.322		1.60485	+15.52
9	93.718		1.60628	15.56
11	115.115		1.60773	15.60
13	136.511		1.60918	15.64
15	157.908		1.61063	15.68
17	179.304		1.61209	+15.72
19	200.701		1.61355	15.76
21	222.097		1.61501	15.81
23	243.494		1.61647	15.86
25	264.890		1.61793	15.91
27	286.287		1.61938	+15.96
29	307.683		1.62083	16.01
Mai 1	329.080		1.62227	16.06
3	350.476		1.62370	16.11
5	11.873		1.62512	16.16
7	33.269		1.62652	+16.22
9	54.666		1.62791	16.28
11	76.062		1.62929	16.33
13	97.459		1.63065	16.39
15	118.855		1.63198	16.45
17	140.252		1.63330	+16.51
19	161.648		1.63459	16.57
21	183.045		1.63585	16.63
23	204.441		1.63709	16.69
25	225.838		1.63829	16.75
27	247.234		1.63947	+16.81
29	268.631		1.64061	16.87
31	290.027		1.64172	16.93
Juni 2	311.424		1.64279	17.00
4	332.820		1.64382	17.06
6	354.217		1.64481	+17.12
8	15.613		1.64577	17.18
10	37.010		1.64668	17.24
12	58.406		1.64754	17.30
14	79.803		1.64836	+17.36

TETHYS

0h Welt-Zeit	L	M	log a(Δ)/Δ	a(Δ)/Δ sin B
1931				
Juni 14	79°803		1.64836	+17"36
16	101.199		1.64914	17.42
18	122.596		1.64986	17.47
20	143.992		1.65053	17.52
22	165.389		1.65116	17.57
24	186.785		1.65173	+17.62
26	208.182		1.65225	17.67
28	229.578		1.65271	17.72
30	250.975		1.65312	17.77
Juli 2	272.371		1.65348	17.81
4	293.768		1.65378	+17.85
6	315.164		1.65402	17.89
8	336.561		1.65421	17.93
10	357.957		1.65434	17.97
12	19.354		1.65441	18.01
14	40.750		1.65442	+18.05
16	62.147		1.65438	18.08
18	83.543		1.65428	18.11
20	104.940		1.65412	18.13
22	126.336		1.65391	18.15
24	147.733		1.65363	+18.16
26	169.129		1.65330	18.17
28	190.526		1.65292	18.18
30	211.922		1.65248	18.18
Aug. 1	233.319		1.65199	18.19
3	254.715		1.65144	+18.19
5	276.112		1.65085	18.19
7	297.508		1.65020	18.19
9	318.905		1.64950	18.18
11	340.301		1.64875	18.18
13	1.698		1.64795	+18.18
15	23.094		1.64711	18.17
17	44.491		1.64622	18.16
19	65.887		1.64529	18.14
21	87.284		1.64431	18.12
23	108.680		1.64330	+18.10
25	130.077		1.64225	18.07
27	151.473		1.64116	18.04
29	172.870		1.64003	18.00
31	194.266		1.63887	+17.96

TETHYS

0^h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
Aug. 31	194°.266		1.63887	+17″.96
Sept. 2	215.663		1.63768	17.92
4	237.059		1.63646	17.88
6	258.456		1.63521	17.84
8	279.852		1.63394	17.80
10	301.249		1.63264	+17.76
12	322.645		1.63131	17.72
14	344.042		1.62997	17.67
16	5.439		1.62860	17.62
18	26.835		1.62722	17.57
20	48.232		1.62583	+17.52
22	69.628		1.62442	17.47
24	91.025		1.62300	17.41
26	112.422		1.62156	17.35
28	133.818		1.62013	17.29
30	155.215		1.61868	+17.23
Okt. 2	176.611		1.61723	17.16
4	198.008		1.61578	17.10
6	219.404		1.61432	17.04
8	240.801		1.61287	16.97
10	262.197		1.61142	+16.91
12	283.594		1.60997	16.85
14	304.990		1.60852	16.78
16	326.387		1.60709	16.72
18	347.783		1.60566	16.65
20	9.180		1.60424	+16.59
22	30.576		1.60284	16.52
24	51.973		1.60145	16.46
26	73.369		1.60007	16.39
28	94.766		1.59871	16.33
30	116.162		1.59736	+16.26
Nov. 1	137.559		1.59603	16.19
3	158.955		1.59472	16.13
5	180.352		1.59343	16.06
7	201.748		1.59217	16.00
9	223.145		1.59093	+15.93
11	244.541		1.58971	15.86
13	265.938		1.58851	15.79
15	287.334		1.58734	15.72
17	308.731		1.58620	+15.65

DIONE

0^h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
März 28	201°.615	301°.6	1.70535	+19″.66
30	104.685	204.5	1.70672	19.70
April 1	7.754	107.4	1.70810	19.74
3	270.824	10.3	1.70950	19.78
5	173.893	273.2	1.71091	19.83
7	76.963	176.1	1.71233	+19.88
9	340.033	79.0	1.71376	19.93
11	243.103	341.9	1.71521	19.98
13	146.172	244.8	1.71666	20.03
15	49.242	147.7	1.71811	20.08
17	312.311	50.6	1.71957	+20.14
19	215.381	313.5	1.72103	20.19
21	118.451	216.4	1.72249	20.25
23	21.521	119.3	1.72395	20.31
25	284.591	22.2	1.72541	20.37
27	187.661	285.1	1.72686	+20.43
29	90.730	188.0	1.72831	20.50
Mai 1	353.800	90.9	1.72975	20.57
3	256.869	353.8	1.73118	20.64
5	159.939	256.7	1.73260	20.71
7	63.008	159.6	1.73400	+20.78
9	326.078	62.5	1.73539	20.85
11	229.148	325.4	1.73677	20.92
13	132.218	228.3	1.73813	20.99
15	35.287	131.2	1.73946	21.06
17	298.357	34.1	1.74078	+21.14
19	201.427	297.0	1.74207	21.22
21	104.497	199.9	1.74333	21.30
23	7.566	102.8	1.74457	21.38
25	270.636	5.7	1.74577	21.46
27	173.706	268.6	1.74695	+21.53
29	76.776	171.5	1.74809	21.61
31	339.845	74.4	1.74920	21.68
Juni 2	242.915	337.3	1.75027	21.76
4	145.984	240.2	1.75130	21.84
6	49.054	143.1	1.75229	+21.92
8	312.123	46.0	1.75325	22.00
10	215.193	308.9	1.75416	22.08
12	118.263	211.8	1.75502	22.15
14	21.333	114.7	1.75584	+22.22

DIONE

0h Welt-Zeit	L	M	log a(Δ)/Δ	a(Δ)/Δ sin B	0h Welt-Zeit	L	M	log a(Δ)/Δ	a(Δ)/Δ sin B
1931	°	°		"	1931.	°	°		"
Juni 14	21.333	114.7	1.75584	+22.22	Aug. 31	201.053	287.8	1.74635	+23.00
16	284.402	17.6	1.75662	22.29	Sept. 2	104.123	190.7	1.74516	22.95
18	187.472	280.5	1.75734	22.36	4	7.192	93.6	1.74394	22.90
20	90.542	183.4	1.75801	22.43	6	270.262	356.5	1.74269	22.85
22	353.612	86.3	1.75864	22.50	8	173.332	259.4	1.74142	22.80
24	256.681	349.2	1.75921	+22.57	10	76.402	162.3	1.74012	+22.75
26	159.751	252.1	1.75973	22.64	12	339.471	65.2	1.73879	22.69
28	62.821	155.0	1.76019	22.70	14	242.541	328.1	1.73745	22.63
30	325.891	57.9	1.76060	22.76	16	145.611	231.0	1.73608	22.56
Juli 2	228.960	320.8	1.76096	22.82	18	48.681	133.9	1.73470	22.49
4	132.030	223.7	1.76126	+22.87	20	311.750	36.8	1.73331	+22.42
6	35.100	126.6	1.76150	22.92	22	214.820	299.7	1.73190	22.35
8	298.170	29.5	1.76169	22.97	24	117.890	202.6	1.73048	22.28
10	201.239	292.4	1.76182	23.02	26	20.960	105.5	1.72904	22.21
12	104.309	195.3	1.76189	23.06	28	284.029	8.4	1.72761	22.14
14	7.379	98.2	1.76190	+23.10	30	187.099	271.3	1.72616	+22.07
16	270.449	1.1	1.76186	23.14	Okt. 2	90.169	174.2	1.72471	21.99
18	173.518	264.0	1.76176	23.17	4	353.239	77.1	1.72326	21.91
20	76.588	166.9	1.76160	23.20	6	256.308	340.0	1.72180	21.83
22	339.658	69.8	1.76139	23.23	8	159.378	242.9	1.72035	21.75
24	242.728	332.7	1.76111	+23.25	10	62.448	145.8	1.71890	+21.67
26	145.797	235.6	1.76078	23.27	12	325.518	48.7	1.71745	21.59
28	48.867	138.5	1.76040	23.29	14	228.587	311.6	1.71600	21.51
30	311.937	41.4	1.75996	23.30	16	131.657	214.5	1.71457	21.42
Aug. 1	215.007	304.3	1.75947	23.31	18	34.727	117.4	1.71314	21.34
3	118.076	207.2	1.75892	+23.31	20	297.797	20.3	1.71172	+21.25
5	21.146	110.1	1.75833	23.31	22	200.867	283.2	1.71032	21.17
7	284.216	13.0	1.75768	23.31	24	103.936	186.1	1.70893	21.08
9	187.286	275.9	1.75698	23.30	26	7.006	89.0	1.70755	20.99
11	90.355	178.8	1.75623	23.29	28	270.076	351.9	1.70619	20.90
13	353.425	81.7	1.75543	+23.28	30	173.146	254.8	1.70484	+20.82
15	256.495	344.6	1.75459	23.26	Nov. 1	76.216	157.7	1.70351	20.73
17	159.565	247.5	1.75370	23.24	3	339.286	60.6	1.70220	20.65
19	62.634	150.4	1.75277	23.22	5	242.356	323.5	1.70091	20.56
21	325.704	53.3	1.75179	23.19	7	145.425	226.4	1.69965	20.48
23	228.774	316.2	1.75078	+23.16	9	48.495	129.3	1.69841	+20.39
25	131.844	219.1	1.74973	23.13	11	311.565	32.2	1.69719	20.30
27	34.913	122.0	1.74864	23.09	13	214.635	295.1	1.69599	20.22
29	297.983	24.9	1.74751	23.05	15	117.704	198.0	1.69482	20.13
31	201.053	287.8	1.74635	+23.00	17	20.774	100.9	1.69368	+20.04

RHEA

0h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
März 28	119°.178	294°.2	1.85039	+27″.48
30	278.558	93.5	1.85176	27.53
April 1	77.938	252.9	1.85314	27.58
3	237.318	52.3	1.85454	27.64
5	36.698	211.7	1.85595	27.70
7	196.078	11.1	1.85737	+27.76
9	355.458	170.5	1.85880	27.83
11	154.838	329.9	1.86025	27.90
13	314.218	129.3	1.86170	27.97
15	113.598	288.6	1.86315	28.04
17	272.977	88.0	1.86461	+28.12
19	72.357	247.4	1.86607	28.20
21	231.737	46.8	1.86753	28.28
23	31.117	206.2	1.86899	28.36
25	190.497	5.6	1.87045	28.45
27	349.877	165.0	1.87190	+28.54
29	149.257	324.4	1.87335	28.63
Mai 1	308.637	123.7	1.87479	28.72
3	108.017	283.1	1.87622	28.81
5	267.397	82.5	1.87764	28.91
7	66.777	241.9	1.87904	+29.01
9	226.157	41.3	1.88043	29.11
11	25.537	200.7	1.88181	29.21
13	184.917	0.1	1.88317	29.31
15	344.297	159.5	1.88450	29.41
17	143.677	318.8	1.88582	+29.52
19	303.056	118.2	1.88711	29.63
21	102.436	277.6	1.88837	29.74
23	261.816	77.0	1.88961	29.85
25	61.196	236.4	1.89081	29.96
27	220.576	35.8	1.89199	+30.06
29	19.956	195.2	1.89313	30.17
31	179.336	354.6	1.89424	30.28
Juni 2	338.716	153.9	1.89531	30.39
4	138.096	313.3	1.89634	30.50
6	297.476	112.7	1.89733	+30.61
8	96.856	272.1	1.89829	30.72
10	256.236	71.5	1.89920	30.83
12	55.616	230.9	1.90006	30.93
14	214.996	30.3	1.90088	+31.03

RHEA

0h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931				
Juni 14	214°.996	30°.3	1.90088	+31″.03
16	14.376	189.7	1.90166	31.13
18	173.756	349.1	1.90238	31.23
20	333.135	148.4	1.90305	31.33
22	132.515	307.8	1.90368	31.43
24	291.895	107.2	1.90425	+31.52
26	91.275	266.6	1.90477	31.61
28	250.655	66.0	1.90523	31.70
30	50.035	225.4	1.90564	31.79
Juli 2	209.415	24.8	1.90600	31.87
4	8.795	184.1	1.90630	+31.95
6	168.175	343.5	1.90654	32.02
8	327.555	142.9	1.90673	32.09
10	126.935	302.3	1.90686	32.15
12	286.315	101.7	1.90693	32.21
14	85.695	261.1	1.90694	+32.26
16	245.075	60.5	1.90690	32.31
18	44.455	219.9	1.90680	32.36
20	203.835	19.2	1.90664	32.40
22	3.214	178.6	1.90643	32.44
24	162.594	338.0	1.90615	+32.47
26	321.974	137.4	1.90582	32.50
28	121.354	296.8	1.90544	32.52
30	280.734	96.2	1.90500	32.54
Aug. 1	80.114	255.6	1.90451	32.55
3	239.494	55.0	1.90396	+32.56
5	38.874	214.3	1.90337	32.56
7	198.254	13.7	1.90272	32.56
9	357.634	173.1	1.90202	32.55
11	157.014	332.5	1.90127	32.53
13	316.394	131.9	1.90047	+32.51
15	115.774	291.3	1.89963	32.49
17	275.154	90.7	1.89874	32.46
19	74.534	250.1	1.89781	32.43
21	233.914	49.4	1.89683	32.39
23	33.293	208.8	1.89582	+32.35
25	192.673	8.2	1.89477	32.30
27	352.053	167.6	1.89368	32.25
29	151.433	327.0	1.89255	32.19
31	310.813	126.4	1.89139	+32.13

0h Welt-Zeit	L	M	$\log\frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta}\sin B$	0h Welt-Zeit	L	M	$\log\frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta}\sin B$
		RHEA					TITAN		
1931					1931				
Aug. 31	310°.813	126°.4	1.89139	+32″.13	März 28	316°.56	143°.6	2.21554	+63″.67
Sept. 2	110.193	285.8	1.89020	32.07	30	1.71	188.8	2.21691	63.79
4	269.573	85.2	1.88898	32.00	April 1	46.87	233.9	2.21829	63.92
6	68.953	244.5	1.88773	31.93	3	92.02	279.1	2.21969	64.05
8	228.333	43.9	1.88646	31.85	5	137.17	324.2	2.22110	64.19
10	27.713	203.3	1.88516	+31.77	7	182.33	9.4	2.22252	+64.34
12	187.093	2.7	1.88383	31.69	9	227.48	54.5	2.22395	64.50
14	346.473	162.1	1.88249	31.60	11	272.64	99.7	2.22540	64.66
16	145.853	321.5	1.88112	31.51	13	317.79	144.8	2.22685	64.83
18	305.233	120.9	1.87974	31.42	15	2.94	190.0	2.22830	65.00
20	104.613	280.3	1.87835	+31.32	17	48.10	235.1	2.22976	+65.18
22	263.993	79.6	1.87694	31.22	19	93.25	280.3	2.23122	65.36
24	63.372	239.0	1.87552	31.12	21	138.40	325.4	2.23268	65.55
26	222.752	38.4	1.87408	31.02	23	183.56	10.6	2.23414	65.75
28	22.132	197.8	1.87265	30.92	25	228.71	55.7	2.23560	65.95
30	181.512	357.2	1.87120	+30.82	27	273.87	100.9	2.23705	+66.15
Okt. 2	340.892	156.6	1.86975	30.71	29	319.02	146.0	2.23850	66.36
4	140.272	316.0	1.86830	30.60	Mai 1	4.17	191.2	2.23994	66.58
6	299.652	115.4	1.86684	30.49	3	49.33	236.3	2.24137	66.80
8	99.032	274.7	1.86539	30.38	5	94.48	281.5	2.24279	67.02
10	258.412	74.1	1.86394	+30.27	7	139.63	326.6	2.24419	+67.25
12	57.792	233.5	1.86249	30.15	9	184.79	11.8	2.24558	67.49
14	217.172	32.9	1.86104	30.03	11	229.94	56.9	2.24696	67.73
16	16.552	192.3	1.85961	29.91	13	275.10	102.1	2.24832	67.97
18	175.932	351.7	1.85818	29.79	15	320.25	147.2	2.24965	68.21
20	335.312	151.1	1.85676	+29.67	17	5.40	192.4	2.25097	+68.46
22	134.692	310.5	1.85536	29.55	19	50.56	237.5	2.25226	68.71
24	294.072	109.8	1.85397	29.43	21	95.71	282.7	2.25352	68.96
26	93.451	269.2	1.85259	29.31	23	140.86	327.8	2.25476	69.21
28	252.831	68.6	1.85123	29.19	25	186.02	13.0	2.25596	69.46
30	52.211	228.0	1.84988	+29.07	27	231.17	58.1	2.25714	+69.71
Nov. 1	211.591	27.4	1.84855	28.95	29	276.33	103.3	2.25828	69.96
3	10.971	186.8	1.84724	28.83	31	321.48	148.4	2.25939	70.21
5	170.351	346.2	1.84595	28.71	Juni 2	6.63	193.6	2.26046	70.47
7	329.731	145.6	1.84469	28.59	4	51.79	238.7	2.26149	70.72
9	129.111	304.9	1.84345	+28.47	6	96.94	283.9	2.26248	+70.97
11	288.491	104.3	1.84223	28.35	8	142.09	329.0	2.26344	71.22
13	87.871	263.7	1.84103	28.23	10	187.25	14.2	2.26435	71.47
15	247.251	63.1	1.83986	28.11	12	232.40	59.3	2.26521	71.71
17	46.631	222.5	1.83872	+27.99	14	277.56	104.5	2.26603	+71.95

Saturnstrabanten 1931

TITAN

0^h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931	°	°		″
Juni 14	277.56	104.5	2.26603	+71.95
16	322.71	149.6	2.26681	72.18
18	7.86	194.8	2.26753	72.41
20	53.02	239.9	2.26820	72.64
22	98.17	285.1	2.26883	72.86
24	143.32	330.2	2.26940	+73.08
26	188.48	15.4	2.26992	73.29
28	233.63	60.5	2.27038	73.49
30	278.79	105.7	2.27079	73.68
Juli 2	323.94	150.8	2.27115	73.86
4	9.10	196.0	2.27145	+74.04
6	54.25	241.1	2.27169	74.21
8	99.41	286.3	2.27188	74.37
10	144.56	331.4	2.27201	74.52
12	189.72	16.6	2.27208	74.66
14	234.87	61.7	2.27209	+74.79
16	280.03	106.9	2.27205	74.91
18	325.18	152.0	2.27195	75.02
20	10.33	197.2	2.27179	75.12
22	55.49	242.3	2.27158	75.21
24	100.64	287.5	2.27130	+75.28
26	145.79	332.6	2.27097	75.34
28	190.95	17.8	2.27059	75.39
30	236.10	63.0	2.27015	75.43
Aug. 1	281.26	108.1	2.26966	75.46
3	326.41	153.3	2.26911	+75.47
5	11.56	198.5	2.26852	75.47
7	56.72	243.6	2.26787	75.46
9	101.87	288.8	2.26717	75.44
11	147.02	333.9	2.26642	75.41
13	192.18	19.1	2.26562	+75.37
15	237.33	64.2	2.26478	75.32
17	282.49	109.4	2.26389	75.26
19	327.64	154.5	2.26296	75.18
21	12.79	199.7	2.26198	75.09
23	57.95	244.8	2.26097	+74.99
25	103.10	290.0	2.25992	74.88
27	148.25	335.1	2.25883	74.76
29	193.41	20.3	2.25770	74.63
31	238.56	65.4	2.25654	+74.49

TITAN

0^h Welt-Zeit	L	M	$\log \frac{a(\Delta)}{\Delta}$	$\frac{a(\Delta)}{\Delta} \sin B$
1931	°	°		″
Aug. 31	238.56	65.4	2.25654	+74.49
Sept. 2	283.72	110.6	2.25535	74.34
4	328.87	155.7	2.25413	74.18
6	14.02	200.9	2.25288	74.01
8	59.18	246.0	2.25161	73.83
10	104.33	291.2	2.25031	+73.65
12	149.48	336.3	2.24898	73.46
14	194.64	21.5	2.24764	73.26
16	239.79	66.6	2.24627	73.06
18	284.95	111.8	2.24489	72.85
20	330.10	156.9	2.24350	+72.63
22	15.25	202.1	2.24209	72.40
24	60.41	247.2	2.24067	72.17
26	105.56	292.4	2.23923	71.93
28	150.71	337.5	2.23780	71.69
30	195.87	22.7	2.23635	+71.44
Okt. 2	241.02	67.8	2.23490	71.19
4	286.18	113.0	2.23345	70.94
6	331.33	158.1	2.23199	70.68
8	16.48	203.3	2.23054	70.42
10	61.64	248.4	2.22909	+70.15
12	106.79	293.6	2.22764	69.88
14	151.94	338.7	2.22619	69.61
16	197.10	23.9	2.22476	69.34
18	242.25	69.0	2.22333	69.07
20	287.41	114.2	2.22191	+68.79
22	332.56	159.3	2.22051	68.51
24	17.71	204.5	2.21912	68.23
26	62.87	249.6	2.21774	67.95
28	108.02	294.8	2.21638	67.67
30	153.17	339.9	2.21503	+67.39
Nov. 1	198.33	25.1	2.21370	67.11
3	243.48	70.2	2.21239	66.83
5	288.64	115.4	2.21110	66.55
7	333.79	160.5	2.20984	66.27
9	18.94	205.7	2.20860	+65.99
11	64.10	250.8	2.20738	65.71
13	109.25	296.0	2.20618	65.43
15	154.40	341.1	2.20501	65.16
17	199.56	26.3	2.20387	+64.89

Bewegung der mittleren Länge L und der mittleren Anomalie M

Zeit	Mimas		Enceladus		Tethys	Dione		Rhea		Titan	
	L	M	L	M	L	L	M	L	M	L	M
1^{d}	381.985°	380.99°	262.732°	262.4°	190.698°	131.535°	131.5°	79.690°	79.7°	22.58°	22.6°
1^{h}	15.916°	15.87°	10.947°	10.9°	7.946°	5.481°	5.5°	3.320°	3.3°	0.94°	0.9°
2	31.832	31.75	21.894	21.9	15.892	10.961	11.0	6.641	6.6	1.88	1.9
3	47.748	47.62	32.842	32.8	23.838	16.442	16.4	9.961	10.0	2.82	2.8
4	63.664	63.50	43.789	43.7	31.783	21.923	21.9	13.282	13.3	3.76	3.8
5	79.580	79.37	54.736	54.7	39.729	27.403	27.4	16.602	16.6	4.70	4.7
6	95.496	95.25	65.683	65.6	47.675	32.884	32.9	19.923	19.9	5.64	5.7
7	111.412	111.12	76.630	76.5	55.621	38.364	38.4	23.243	23.2	6.59	6.6
8	127.328	127.00	87.577	87.5	63.566	43.845	43.8	26.564	26.6	7.53	7.5
9	143.244	142.87	98.525	98.4	71.512	49.326	49.3	29.884	29.9	8.47	8.5
10	159.160	158.74	109.472	109.3	79.458	54.806	54.8	33.205	33.2	9.41	9.4
11	175.076	174.62	120.419	120.3	87.403	60.287	60.3	36.525	36.5	10.35	10.4
12	190.992	190.49	131.366	131.2	95.349	65.767	65.7	39.845	39.8	11.29	11.3
13	206.909	206.37	142.313	142.1	103.295	71.248	71.2	43.166	43.2	12.23	12.2
14	222.825	222.24	153.260	153.1	111.241	76.729	76.7	46.486	46.5	13.17	13.2
15	238.741	238.12	164.207	164.0	119.186	82.209	82.2	49.806	49.8	14.11	14.1
16	254.657	253.99	175.154	174.9	127.132	87.690	87.7	53.127	53.1	15.05	15.1
17	270.573	269.86	186.101	185.9	135.078	93.171	93.1	56.447	56.5	15.99	16.0
18	286.489	285.74	197.048	196.8	143.024	98.651	98.6	59.768	59.8	16.93	17.0
19	302.405	301.61	207.996	207.7	150.970	104.132	104.1	63.088	63.1	17.88	17.9
20	318.321	317.49	218.943	218.7	158.916	109.613	109.6	66.409	66.4	18.82	18.8
21	334.237	333.36	229.890	229.6	166.861	115.093	115.1	69.729	69.7	19.76	19.8
22	350.153	349.24	240.837	240.5	174.806	120.574	120.5	73.050	73.1	20.70	20.7
23	366.069	365.11	251.785	251.5	182.752	126.054	126.0	76.370	76.4	21.64	21.7
1^{m}	0.265°	0.26°	0.182°	0.2°	0.132°	0.091°	0.1°	0.055°	0.0°	0.02°	0.0°
2	0.531	0.53	0.365	0.4	0.265	0.183	0.2	0.111	0.1	0.03	0.0
3	0.796	0.79	0.547	0.5	0.397	0.274	0.3	0.166	0.1	0.05	0.0
4	1.061	1.06	0.730	0.7	0.530	0.365	0.4	0.221	0.2	0.06	0.1
5	1.326	1.32	0.912	0.9	0.662	0.457	0.5	0.277	0.2	0.08	0.1
6	1.592	1.58	1.095	1.1	0.795	0.548	0.5	0.332	0.3	0.09	0.1
7	1.857	1.85	1.278	1.3	0.927	0.640	0.6	0.387	0.3	0.11	0.1
8	2.122	2.11	1.460	1.4	1.060	0.731	0.7	0.442	0.4	0.13	0.1
9	2.388	2.38	1.642	1.6	1.192	0.822	0.8	0.497	0.4	0.14	0.1
10	2.653	2.64	1.825	1.8	1.324	0.914	0.9	0.553	0.5	0.16	0.2
20	5.305	5.29	3.649	3.6	2.649	1.827	1.8	1.107	1.1	0.31	0.3
30	7.958	7.93	5.474	5.4	3.973	2.740	2.7	1.660	1.6	0.47	0.5
40	10.611	10.58	7.298	7.3	5.297	3.654	3.7	2.214	2.2	0.63	0.6
50	13.263	13.22	9.123	9.1	6.622	4.567	4.6	2.767	2.7	0.78	0.8
10^{s}	0.044°	0.04°	0.030°	0.0°	0.022°	0.015°	0.0°	0.009°	0.0°	0.00°	0.0°
20	0.088	0.09	0.061	0.1	0.044	0.030	0.0	0.018	0.0	0.01	0.0
30	0.133	0.13	0.091	0.1	0.066	0.046	0.0	0.028	0.0	0.01	0.0
40	0.177	0.17	0.122	0.1	0.088	0.061	0.1	0.037	0.0	0.01	0.0
50	0.221	0.22	0.152	0.2	0.110	0.076	0.1	0.046	0.0	0.01	0.0

M	Mimas ±(v−M)	Mimas $\log \frac{r}{a}$	Enceladus ±(v−M)	Enceladus $\log \frac{r}{a}$	Dione ±(v−M)	Dione $\log \frac{r}{a}$	Rhea ±(v−M)	Rhea $\log \frac{r}{a}$	M
°	°		°		°		°		°
0	0.000	9.99167	0.000	9.99800	0.000	9.99913	0.000	9.99961	360
2	0.078	9.99167	0.018	9.99800	0.008	9.99913	0.004	9.99961	358
4	0.156	9.99169	0.037	9.99800	0.016	9.99913	0.007	9.99961	356
6	0.233	9.99172	0.055	9.99801	0.024	9.99913	0.011	9.99961	354
8	0.310	9.99175	0.074	9.99802	0.032	9.99914	0.014	9.99961	352
10	0.387	9.99180	0.092	9.99803	0.040	9.99914	0.018	9.99961	350
12	0.463	9.99186	0.110	9.99804	0.048	9.99915	0.021	9.99962	348
14	0.539	9.99193	0.128	9.99806	0.056	9.99916	0.025	9.99962	346
16	0.614	9.99201	0.146	9.99808	0.063	9.99916	0.028	9.99962	344
18	0.688	9.99210	0.164	9.99810	0.071	9.99917	0.032	9.99963	342
20	0.762	9.99220	0.181	9.99812	0.079	9.99918	0.035	9.99963	340
22	0.834	9.99230	0.199	9.99814	0.086	9.99919	0.039	9.99964	338
24	0.905	9.99242	0.216	9.99817	0.093	9.99921	0.042	9.99964	336
26	0.975	9.99255	0.232	9.99820	0.101	9.99922	0.045	9.99965	334
28	1.044	9.99269	0.249	9.99823	0.108	9.99923	0.048	9.99966	332
30	1.111	9.99284	0.265	9.99827	0.115	9.99925	0.052	9.99966	330
32	1.177	9.99299	0.281	9.99830	0.122	9.99926	0.055	9.99967	328
34	1.242	9.99316	0.296	9.99834	0.128	9.99928	0.058	9.99968	326
36	1.305	9.99333	0.311	9.99838	0.135	9.99930	0.061	9.99968	324
38	1.366	9.99351	0.326	9.99842	0.141	9.99931	0.064	9.99969	322
40	1.425	9.99370	0.340	9.99847	0.148	9.99933	0.066	9.99970	320
42	1.483	9.99390	0.354	9.99852	0.154	9.99935	0.069	9.99971	318
44	1.538	9.99410	0.368	9.99856	0.159	9.99937	0.072	9.99972	316
46	1.592	9.99431	0.381	9.99861	0.165	9.99940	0.074	9.99973	314
48	1.644	9.99453	0.393	9.99866	0.171	9.99942	0.077	9.99974	312
50	1.693	9.99476	0.405	9.99872	0.176	9.99944	0.079	9.99975	310
52	1.741	9.99499	0.417	9.99877	0.181	9.99947	0.081	9.99976	308
54	1.786	9.99523	0.428	9.99883	0.186	9.99949	0.083	9.99977	306
56	1.829	9.99547	0.438	9.99889	0.190	9.99951	0.085	9.99978	304
58	1.870	9.99572	0.448	9.99895	0.195	9.99954	0.087	9.99979	302
60	1.908	9.99598	0.458	9.99901	0.199	9.99957	0.089	9.99980	300
62	1.944	9.99623	0.467	9.99907	0.203	9.99959	0.091	9.99982	298
64	1.977	9.99650	0.475	9.99913	0.206	9.99962	0.093	9.99983	296
66	2.008	9.99676	0.483	9.99919	0.210	9.99965	0.094	9.99984	294
68	2.036	9.99704	0.490	9.99926	0.213	9.99967	0.096	9.99985	292
70	2.062	9.99731	0.496	9.99932	0.216	9.99970	0.097	9.99987	290
72	2.086	9.99759	0.502	9.99939	0.218	9.99973	0.098	9.99988	288
74	2.106	9.99787	0.508	9.99946	0.220	9.99976	0.099	9.99989	286
76	2.124	9.99815	0.512	9.99952	0.222	9.99979	0.100	9.99991	284
78	2.140	9.99843	0.516	9.99959	0.224	9.99982	0.101	9.99992	282
80	2.153	9.99872	0.520	9.99966	0.226	9.99985	0.102	9.99993	280
82	2.163	9.99900	0.523	9.99973	0.227	9.99988	0.102	9.99995	278
84	2.170	9.99929	0.525	9.99980	0.228	9.99991	0.103	9.99996	276
86	2.175	9.99958	0.526	9.99987	0.229	9.99994	0.103	9.99997	274
88	2.177	9.99987	0.527	9.99994	0.229	9.99997	0.103	9.99999	272
90	2.177	0.00016	0.527	0.00001	0.229	0.00000	0.103	0.00000	270

M	Mimas ±(v−M)	Mimas log r/a	Enceladus ±(v−M)	Enceladus log r/a	Dione ±(v−M)	Dione log r/a	Rhea ±(v−M)	Rhea log r/a	M
90°	2.177°	0.00016	0.527°	0.00001	0.229°	0.00000	0.103°	0.00000	270°
92	2.174	0.00044	0.527	0.00008	0.229	0.00003	0.103	0.00001	268
94	2.168	0.00073	0.526	0.00015	0.229	0.00006	0.103	0.00003	266
96	2.159	0.00101	0.524	0.00022	0.228	0.00009	0.103	0.00004	264
98	2.148	0.00130	0.522	0.00029	0.227	0.00012	0.102	0.00005	262
100	2.135	0.00158	0.519	0.00035	0.226	0.00015	0.102	0.00007	260
102	2.119	0.00186	0.515	0.00042	0.224	0.00018	0.101	0.00008	258
104	2.100	0.00214	0.511	0.00049	0.222	0.00021	0.100	0.00009	256
106	2.079	0.00241	0.506	0.00056	0.220	0.00024	0.099	0.00011	254
108	2.055	0.00268	0.500	0.00062	0.218	0.00027	0.098	0.00012	252
110	2.029	0.00295	0.494	0.00069	0.215	0.00030	0.097	0.00013	250
112	2.000	0.00321	0.488	0.00075	0.212	0.00033	0.096	0.00015	248
114	1.969	0.00347	0.481	0.00082	0.209	0.00035	0.094	0.00016	246
116	1.936	0.00373	0.473	0.00088	0.206	0.00038	0.093	0.00017	244
118	1.901	0.00398	0.464	0.00094	0.202	0.00041	0.091	0.00018	242
120	1.863	0.00422	0.455	0.00100	0.198	0.00044	0.089	0.00019	240
122	1.823	0.00446	0.446	0.00106	0.194	0.00046	0.087	0.00021	238
124	1.781	0.00469	0.436	0.00112	0.190	0.00049	0.085	0.00022	236
126	1.737	0.00492	0.425	0.00118	0.185	0.00051	0.083	0.00023	234
128	1.691	0.00514	0.414	0.00123	0.180	0.00053	0.081	0.00024	232
130	1.643	0.00536	0.402	0.00129	0.175	0.00056	0.079	0.00025	230
132	1.593	0.00557	0.390	0.00134	0.170	0.00058	0.077	0.00026	228
134	1.541	0.00577	0.378	0.00139	0.164	0.00060	0.074	0.00027	226
136	1.487	0.00597	0.365	0.00144	0.159	0.00062	0.072	0.00028	224
138	1.431	0.00616	0.351	0.00148	0.153	0.00065	0.069	0.00029	222
140	1.374	0.00634	0.337	0.00153	0.147	0.00067	0.066	0.00030	220
142	1.316	0.00651	0.323	0.00157	0.141	0.00068	0.064	0.00031	218
144	1.256	0.00668	0.308	0.00162	0.134	0.00070	0.061	0.00032	216
146	1.194	0.00683	0.293	0.00166	0.128	0.00072	0.058	0.00032	214
148	1.131	0.00698	0.278	0.00169	0.121	0.00074	0.055	0.00033	212
150	1.067	0.00713	0.262	0.00173	0.114	0.00075	0.052	0.00034	210
152	1.001	0.00726	0.246	0.00176	0.107	0.00077	0.048	0.00034	208
154	0.934	0.00738	0.230	0.00179	0.100	0.00078	0.045	0.00035	206
156	0.867	0.00750	0.213	0.00182	0.093	0.00079	0.042	0.00036	204
158	0.798	0.00760	0.196	0.00185	0.086	0.00080	0.039	0.00036	202
160	0.728	0.00770	0.179	0.00187	0.078	0.00081	0.035	0.00037	200
162	0.658	0.00779	0.162	0.00190	0.071	0.00082	0.032	0.00037	198
164	0.587	0.00787	0.144	0.00192	0.063	0.00083	0.028	0.00037	196
166	0.515	0.00794	0.127	0.00193	0.055	0.00084	0.025	0.00038	194
168	0.442	0.00800	0.109	0.00195	0.048	0.00085	0.021	0.00038	192
170	0.369	0.00805	0.091	0.00196	0.040	0.00085	0.018	0.00038	190
172	0.296	0.00810	0.073	0.00197	0.032	0.00086	0.014	0.00039	188
174	0.222	0.00813	0.055	0.00198	0.024	0.00086	0.011	0.00039	186
176	0.148	0.00815	0.037	0.00199	0.016	0.00086	0.007	0.00039	184
178	0.074	0.00817	0.018	0.00199	0.008	0.00087	0.004	0.00039	182
180	0.000	0.00817	0.000	0.00199	0.000	0.00087	0.000	0.00039	180

0h Welt-Zeit	ϑ Mimas	ϑ Encel.	ϑ Tethys	ϑ Dione	ϑ Rhea	γ Rhea	N Saturnsring	J Saturnsring	ω Saturnsring
1931									
Jan. 1	156°6	306°2	197°1	295°2	318°1	20′37	127°667	6°792	41°990
17	140.6	299.5	193.9	293.8	317.7	20.38	127.669	6.792	41.989
Febr. 2	124.6	292.8	190.7	292.5	317.2	20.40	127.671	6.791	41.988
18	108.6	286.1	187.6	291.1	316.8	20.41	127.672	6.791	41.987
März 6	92.6	279.4	184.4	289.7	316.3	20.42	127.674	6.791	41.985
22	76.6	272.7	181.2	288.4	315.9	20.44	127.676	6.791	41.984
April 7	60.6	266.0	178.0	287.0	315.5	20.45	127.678	6.791	41.983
23	44.6	259.3	174.8	285.7	315.0	20.46	127.680	6.790	41.982
Mai 9	28.5	252.6	171.6	284.3	314.6	20.48	127.682	6.790	41.980
25	12.5	245.9	168.5	282.9	314.2	20.49	127.683	6.790	41.979
Juni 10	356.5	239.2	165.3	281.6	313.7	20.51	127.685	6.790	41.978
26	340.5	232.5	162.1	280.2	313.2	20.52	127.687	6.790	41.976
Juli 12	324.5	225.8	158.9	278.9	312.8	20.53	127.689	6.789	41.975
28	308.5	219.1	155.8	277.5	312.4	20.55	127.691	6.789	41.974
Aug. 13	292.5	212.5	152.6	276.1	311.9	20.56	127.692	6.789	41.973
29	276.5	205.8	149.4	274.8	311.5	20.57	127.694	6.789	41.971
Sept. 14	260.5	199.1	146.2	273.4	311.0	20.59	127.696	6.789	41.970
30	244.5	192.4	143.1	272.1	310.6	20.60	127.698	6.788	41.969
Okt. 16	228.5	185.7	139.9	270.7	310.1	20.61	127.700	6.788	41.968
Nov. 1	212.5	179.0	136.7	269.3	309.7	20.63	127.702	6.788	41.966
17	196.5	172.3	133.5	268.0	309.3	20.64	127.703	6.788	41.965
Dez. 3	180.5	165.7	130.3	266.6	308.8	20.65	127.705	6.788	41.964
19	164.5	159.0	127.2	265.3	308.4	20.67	127.707	6.788	41.963
35	148.5	152.2	124.0	263.9	307.9	20.68	127.709	6.787	41.961

$\log \frac{1}{1+\zeta}$, in Einheiten der 5. Dezimale

$u-U$	$u-U$	Mimas	Encel.	Tethys	Dione	Rhea	$u-U$	$u-U$
0°	360°	−6+	−7+	−9+	−11+	−16+	180°	180°
10	350	−6+	−7+	−9+	−11+	−16+	170	190
20	340	−5+	−7+	−8+	−11+	−15+	160	200
30	330	−5+	−6+	−8+	−10+	−14+	150	210
40	320	−4+	−6+	−7+	− 9+	−12+	140	220
50	310	−3+	−5+	−6+	− 8+	−10+	130	230
60	300	−3+	−4+	−4+	− 6+	− 8+	120	240
70	290	−2+	−3+	−3+	− 4+	− 6+	110	250
80	280	−1+	−1+	−2+	− 2+	− 3+	100	260
90	270	0	0	0	0	0	90	270

0h Welt-Zeit	HYPERION U		HYPERION B		HYPERION P		0h Welt-Zeit	HYPERION U		HYPERION B		HYPERION P	
1931							1931						
März 28	165°635	117	+23°101	29	+6°748	3	Juni 14	165°418	124	+23°243	35	+6°751	3
30	165.752	111	23.072	28	6.751	3	16	165.294	128	23.278	36	6.748	3
April 1	165.863	105	23.044	26	6.754	3	18	165.166	132	23.314	37	6.745	3
3	165.968	99	23.018	24	6.757	2	20	165.034	135	23.351	38	6.742	3
5	166.067	93	22.994	23	6.759	2	22	164.899	138	23.389	38	6.739	3
7	166.160	86	+22.971	21	+6.761	2	24	164.761	142	+23.427	39	+6.736	4
9	166.246	80	22.950	20	6.763	2	26	164.619	145	23.466	40	6.732	3
11	166.326	73	22.930	18	6.765	2	28	164.474	146	23.506	40	6.729	4
13	166.399	67	22.912	16	6.767	1	30	164.328	148	23.546	41	6.725	3
15	166.466	60	22.896	14	6.768	2	Juli 2	164.180	151	23.587	41	6.722	4
17	166.526	53	+22.882	13	+6.770	1	4	164.029	152	+23.628	41	+6.718	4
19	166.579	47	22.869	11	6.771	1	6	163.877	153	23.669	42	6.714	4
21	166.626	40	22.858	9	6.772	1	8	163.724	154	23.711	42	6.710	4
23	166.666	33	22.849	7	6.773	1	10	163.570	156	23.753	41	6.706	
25	166.699	26	22.842	5	6.774	1	12	163.414	156	23.794	42	6.702	4
27	166.725	19	+22.837	3	+6.775	1	14	163.258	155	+23.836	41	+6.698	4
29	166.744	13	22.834	2	6.776	0	16	163.103	155	23.877	41	6.694	4
Mai 1	166.757	6	22.832	−1	6.776	0	18	162.948	154	23.918	41	6.690	5
3	166.763	−1	22.833	2	6.776	0	20	162.794	154	23.959	41	6.685	4
5	166.762	8	22.835	4	6.776	0	22	162.640	152	24.000	40	6.681	5
7	166.754	15	+22.839	6	+6.776	0	24	162.488	150	+24.040	39	+6.676	4
9	166.739	21	22.845	8	6.776	0	26	162.338	149	24.079	39	6.672	5
11	166.718	28	22.853	10	6.776	1	28	162.189	146	24.118	38	6.667	5
13	166.690	34	22.863	12	6.775	0	30	162.043	144	24.156	37	6.662	4
15	166.656	41	22.875	13	6.775	1	Aug. 1	161.899	141	24.193	36	6.658	4
17	166.615	48	+22.888	15	+6.774	1	3	161.758	138	+24.229	36	+6.654	4
19	166.567	54	22.903	17	6.773	1	5	161.620	135	24.265	35	6.650	4
21	166.513	60	22.920	19	6.772	1	7	161.485	131	24.300	34	6.646	4
23	166.453	66	22.939	20	6.771	1	9	161.354	127	24.334	33	6.642	4
25	166.387	72	22.959	22	6.770	1	11	161.227	123	24.367	31	6.638	4
27	166.315	78	+22.981	24	+6.769	1	13	161.104	118	+24.398	31	+6.634	4
29	166.237	84	23.005	25	6.768	2	15	160.986	114	24.429	29	6.630	3
31	166.153	90	23.030	26	6.766	2	17	160.872	109	24.458	28	6.627	4
Juni 2	166.063	95	23.056	28	6.764	2	19	160.763	104	24.486	27	6.623	3
4	165.968	100	23.084	29	6.762	2	21	160.659	98	24.513	26	6.620	3
6	165.868	105	+23.113	31	+6.760	2	23	160.561	93	+24.539	24	+6.617	3
8	165.763	111	23.144	32	6.758	2	25	160.468	87	24.563	23	6.614	3
10	165.652	115	23.176	33	6.756	2	27	160.381	82	24.586	21	6.611	3
12	165.537	119	23.209	34	6.754	3	29	160.299	76	24.607	20	6.608	2
14	165.418		+23.243		+6.751		31	160.223		+24.627		+6.606	

0^h Welt-Zeit	HYPERION *U*	Δ	HYPERION *B*	Δ	HYPERION *P*	Δ	0^h Welt-Zeit	JAPETUS *U*	Δ	JAPETUS *B*	Δ	JAPETUS *P*	Δ
1931							1931						
Aug. 31	160°.223	69	+24°.627	18	+6°.606	3	März 28	244°.530	109	+8°.350	29	+6°.633	27
Sept. 2	160.154	63	24.645	17	6.603	2	30	244.639	104	8.321	27	6.606	26
4	160.091	57	24.662	16	6.601	2	April 1	244.743	98	8.294	26	6.580	25
6	160.034	50	24.678	14	6.599	1	3	244.841	92	8.268	24	6.555	23
8	159.984	43	24.692	13	6.598	1	5	244.933	86	8.244	23	6.532	22
10	159.941	37	+24.705	11	+6.597	1	7	245.019	81	+8.221	21	+6.510	20
12	159.904	30	24.716	10	6.596	1	9	245.100	74	8.200	19	6.490	18
14	159.874	23	24.726	8	6.595	1	11	245.174	68	8.181	18	6.472	17
16	159.851	16	24.734	7	6.594	0	13	245.242	62	8.163	16	6.455	16
18	159.835	9	24.741	5	6.594	0	15	245.304	56	8.147	14	6.439	14
20	159.826	2	+24.746	4	+6.594	0	17	245.360	50	+8.133	12	+6.425	12
22	159.824	— 5	24.750	2	6.594	0	19	245.410	43	8.121	11	6.413	11
24	159.829	12	24.752	0	6.594	1	21	245.453	37	8.110	9	6.402	9
26	159.841	19	24.752	2	6.595	1	23	245.490	31	8.101	7	6.393	8
28	159.860	27	24.750	3	6.596	1	25	245.521	24	8.094	5	6.385	6
30	159.887	34	+24.747	4	+6.597	1	27	245.545	18	+8.089	3	+6.379	5
Okt. 2	159.921	40	24.743	6	6.598	2	29	245.563	12	8.086	1	6.374	3
4	159.961	47	24.737	8	6.600	2	Mai 1	245.575	6	8.085	0	6.371	1
6	160.008	54	24.729	9	6.602	2	3	245.581	— 1	8.085	2	6.370	0
8	160.062	61	24.720	11	6.604	3	5	245.580	7	8.087	4	6.370	2
10	160.123	68	+24.709	12	+6.607	3	7	245.573	13	+8.091	6	+6.372	3
12	160.191	75	24.697	14	6.610	3	9	245.560	19	8.097	8	6.375	5
14	160.266	82	24.683	15	6.613	3	11	245.541	26	8.105	10	6.380	7
16	160.348	89	24.668	17	6.616	3	13	245.515	32	8.115	11	6.387	8
18	160.437	95	24.651	19	6.619	4	15	245.483	38	8.126	13	6.395	10
20	160.532	101	+24.632	20	+6.623	3	17	245.445	44	+8.139	15	+6.405	11
22	160.633	108	24.612	22	6.626	4	19	245.401	50	8.154	16	6.416	13
24	160.741	114	24.590	24	6.630	4	21	245.351	56	8.170	18	6.429	14
26	160.855	120	24.566	25	6.634	5	23	245.295	62	8.188	20	6.443	16
28	160.975	126	24.541	26	6.639	4	25	245.233	68	8.208	22	6.459	17
30	161.101	132	+24.515	28	+6.643	5	27	245.165	73	+8.230	23	+6.476	19
Nov. 1	161.233	138	24.487	29	6.648	5	29	245.092	78	8.253	24	6.495	20
3	161.371	143	24.458	31	6.653	5	31	245.014	83	8.277	26	6.515	21
5	161.514	149	24.427	32	6.658	5	Juni 2	244.931	89	8.303	28	6.536	22
7	161.663	155	24.395	34	6.663	5	4	244.842	93	8.331	29	6.558	23
9	161.818	160	+24.361	35	+6.668	5	6	244.749	98	+8.360	30	+6.581	25
11	161.978	166	24.326	37	6.673	6	8	244.651	102	8.390	31	6.606	26
13	162.144	170	24.289	38	6.679	5	10	244.549	107	8.421	33	6.632	27
15	162.314	175	24.251	39	6.684	6	12	244.442	111	8.454	34	6.659	28
17	162.489		+24.212		+6.690		14	244.331		+8.488		+6.687	

0h Welt-Zeit	JAPETUS U		JAPETUS B		JAPETUS P	
1931						
Juni 14	244°.331	115	+8°.488	35	+6°.687	29
16	244.216	119	8.523	36	6.716	30
18	244.097	122	8.559	37	6.746	31
20	243.975	126	8.596	38	6.777	32
22	243.849	128	8.634	39	6.809	32
24	243.721	131	+8.673	39	+6.841	33
26	243.590	134	8.712	40	6.874	34
28	243.456	136	8.752	41	6.908	34
30	243.320	137	8.793	41	6.942	35
Juli 2	243.183	139	8.834	42	6.977	35
4	243.044	141	+8.876	42	+7.012	35
6	242.903	142	8.918	42	7.047	36
8	242.761	143	8.960	42	7.083	36
10	242.618	143	9.002	43	7.119	35
12	242.475	144	9.045	42	7.154	36
14	242.331	143	+9.087	43	+7.190	35
16	242.188	143	9.130	43	7.225	36
18	242.045	142	9.173	42	7.261	35
20	241.903	141	9.215	42	7.296	35
22	241.762	140	9.257	41	7.331	35
24	241.622	138	+9.298	41	+7.366	34
26	241.484	137	9.339	40	7.400	34
28	241.347	135	9.379	40	7.434	34
30	241.212	132	9.419	39	7.468	33
Aug. 1	241.080	130	9.458	38	7.501	32
3	240.950	127	+9.496	38	+7.533	31
5	240.823	124	9.534	36	7.564	30
7	240.699	120	9.570	35	7.594	30
9	240.579	117	9.605	35	7.624	29
11	240.462	113	9.640	34	7.653	28
13	240.349	109	+9.674	33	+7.681	27
15	240.240	104	9.707	31	7.708	26
17	240.136	100	9.738	30	7.734	24
19	240.036	96	9.768	29	7.758	23
21	239.940	90	9.797	27	7.781	22
23	239.850	84	+9.824	26	+7.803	21
25	239.766	80	9.850	24	7.824	20
27	239.686	76	9.874	23	7.844	18
29	239.610	69	9.897	21	7.862	17
31	239.541		+9.918		+7.879	

0h Welt-Zeit	JAPETUS U		JAPETUS B		JAPETUS P	
1931						
Aug. 31	239°.541	63	+ 9°.918	20	+7°.879	16
Sept. 2	239.478	58	9.938	19	7.895	14
4	239.420	52	9.957	17	7.909	13
6	239.368	46	9.974	15	7.922	11
8	239.322	40	9.989	14	7.933	10
10	239.282	33	+10.003	12	+7.943	8
12	239.249	27	10.015	10	7.951	7
14	239.222	21	10.025	8	7.958	5
16	239.201	14	10.033	7	7.963	4
18	239.187	8	10.040	5	7.967	2
20	239.179	2	+10.045	4	+7.969	1
22	239.177	5	10.049	2	7.970	1
24	239.182	11	10.051	0	7.969	3
26	239.193	18	10.051	2	7.966	4
28	239.211	24	10.049	4	7.962	6
30	239.235	31	+10.045	5	+7.956	7
Okt. 2	239.266	37	10.040	7	7.949	9
4	239.303	43	10.033	9	7.940	10
6	239.346	50	10.024	10	7.930	12
8	239.396	56	10.014	12	7.918	13
10	239.452	63	+10.002	14	+7.905	15
12	239.515	69	9.988	16	7.890	17
14	239.584	75	9.972	17	7.873	18
16	239.659	81	9.955	19	7.855	19
18	239.740	87	9.936	21	7.836	21
20	239.827	93	+ 9.915	22	+7.815	23
22	239.920	100	9.893	24	7.792	24
24	240.020	105	9.869	26	7.768	25
26	240.125	111	9.843	27	7.743	27
28	240.236	116	9.816	28	7.716	28
30	240.352	122	+ 9.788	30	+7.688	30
Nov. 1	240.474	127	9.758	32	7.658	31
3	240.601	133	9.726	33	7.627	32
5	240.734	137	9.693	34	7.595	34
7	240.871	142	9.659	36	7.561	35
9	241.013	148	+ 9.623	38	+7.526	36
11	241.161	152	9.585	39	7.490	37
13	241.313	156	9.546	40	7.453	39
15	241.469	162	9.506	41	7.414	40
17	241.631		+ 9.465		+7.374	

Saturnstrabanten 1931

HYPERION

0h Welt-Zeit 1931	$\alpha_{tr} - \alpha_{pl}$ (s)	Diff.	$\delta_{tr} - \delta_{pl}$ (″)	Diff.
März 28	−7.3	+3.9	+70	+6
29	−3.4	+4.3	+76	−2
30	+0.9	+4.2	+74	−8
31	+5.1	+3.8	+66	−15
April 1	+8.9	+3.1	+51	−19
2	+12.0	+2.2	+32	−21
3	+14.2	+1.2	+11	−22
4	+15.4	+0.2	−11	−21
5	+15.6	−0.8	−32	−19
6	+14.8	−1.9	−51	−16
7	+12.9	−2.7	−67	−12
8	+10.2	−3.4	−79	−6
9	+6.8	−3.9	−85	0
10	+2.9	−4.2	−85	+7
11	−1.3	−4.0	−78	+13
12	−5.3	−3.6	−65	+19
13	−8.9	−2.7	−46	+24
14	−11.6	−1.4	−22	+27
15	−13.0	+0.1	+5	+26
16	−12.9	+1.6	+31	+22
17	−11.3	+2.9	+53	+16
18	−8.4	+3.9	+69	+9
19	−4.5	+4.4	+78	0
20	−0.1	+4.5	+78	−8
21	+4.4	+4.0	+70	−14
22	+8.4	+3.4	+56	−18
23	+11.8	+2.5	+38	−21
24	+14.3	+1.5	+17	−23
25	+15.8	+0.4	−6	−22
26	+16.2	−0.6	−28	−20
27	+15.6	−1.7	−48	−18
28	+13.9	−2.6	−66	−13
29	+11.3	−3.4	−79	−8
30	+7.9	−4.0	−87	−2
Mai 1	+3.9	−4.3	−89	+6
2	−0.4	−4.2	−83	+13
3	−4.6	−3.9	−70	+19
4	−8.5	−3.0	−51	+24
5	−11.5	−1.8	−27	+27
6	−13.3		0	

0h Welt-Zeit 1931	$\alpha_{tr} - \alpha_{pl}$ (s)	Diff.	$\delta_{tr} - \delta_{pl}$ (″)	Diff.
Mai 6	−13.3	−0.2	0	+27
7	−13.5	+1.4	+27	+24
8	−12.1	+2.8	+51	+18
9	−9.3	+3.8	+69	+10
10	−5.5	+4.5	+79	+2
11	−1.0	+4.6	+81	−6
12	+3.6	+4.3	+75	−13
13	+7.9	+3.7	+62	−18
14	+11.6	+2.7	+44	−22
15	+14.3	+1.8	+22	−23
16	+16.1	+0.7	−1	−23
17	+16.8	−0.5	−24	−22
18	+16.3	−1.5	−46	−19
19	+14.8	−2.5	−65	−15
20	+12.3	−3.4	−80	−9
21	+8.9	−4.0	−89	−3
22	+4.9	−4.4	−92	+4
23	+0.5	−4.5	−88	+12
24	−4.0	−4.1	−76	+18
25	−8.1	−3.3	−58	+24
26	−11.4	−2.1	−34	+28
27	−13.5	−0.5	−6	+29
28	−14.0	+1.1	+23	+26
29	−12.9	+2.7	+49	+20
30	−10.2	+3.8	+69	+12
31	−6.4	+4.5	+81	+4
Juni 1	−1.9	+4.8	+85	−5
2	+2.9	+4.5	+80	−12
3	+7.4	+3.9	+68	−18
4	+11.3	+3.1	+50	−22
5	+14.4	+2.0	+28	−24
6	+16.4	+0.9	+4	−25
7	+17.3	−0.3	−21	−23
8	+17.0	−1.4	−44	−20
9	+15.6	−2.4	−64	−16
10	+13.2	−3.4	−80	−11
11	+9.8	−4.0	−91	−4
12	+5.8	−4.5	−95	+3
13	+1.3	−4.6	−92	+11
14	−3.3		−81	

0h Welt-Zeit 1931	$\alpha_{tr} - \alpha_{pl}$ (s)	Diff.	$\delta_{tr} - \delta_{pl}$ (″)	Diff.
Juni 14	−3.3	−4.3	−81	+18
15	−7.6	−3.6	−63	+24
16	−11.2	−2.4	−39	+28
17	−13.6	−0.8	−11	+29
18	−14.4	+0.9	+18	+28
19	−13.5	+2.5	+46	+22
20	−11.0	+3.8	+68	+14
21	−7.2	+4.5	+82	+6
22	−2.7	+4.9	+88	−4
23	+2.2	+4.7	+84	−12
24	+6.9	+4.1	+72	−17
25	+11.0	+3.3	+55	−22
26	+14.3	+2.2	+33	−25
27	+16.5	+1.1	+8	−25
28	+17.6	−0.2	−17	−24
29	+17.4	−1.2	−41	−22
30	+16.2	−2.3	−63	−17
Juli 1	+13.9	−3.3	−80	−12
2	+10.6	−4.0	−92	−6
3	+6.6	−4.5	−98	+2
4	+2.1	−4.7	−96	+10
5	−2.6	−4.5	−86	+17
6	−7.1	−3.7	−69	+23
7	−10.8	−2.7	−46	+28
8	−13.5	−1.1	−18	+31
9	−14.6	+0.6	+13	+29
10	−14.0	+2.3	+42	+24
11	−11.7	+3.7	+66	+16
12	−8.0	+4.5	+82	+7
13	−3.5	+4.9	+89	−2
14	+1.4	+4.8	+87	−10
15	+6.2	+4.3	+77	−17
16	+10.5	+3.4	+60	−22
17	+13.9	+2.4	+38	−25
18	+16.3	+1.3	+13	−26
19	+17.6	0.0	−13	−25
20	+17.6	−1.1	−38	−22
21	+16.5	−2.1	−60	−18
22	+14.4	−3.2	−78	−14
23	+11.2		−92	

HYPERION

0h Welt-Zeit 1931	$\alpha_{tr} - \alpha_{pl}$ (s)	Diff.	$\delta_{tr} - \delta_{pl}$ (″)	Diff.
Juli 23	+11.2	−3.9	−92	− 7
24	+ 7.3	−4.4	−99	+ 1
25	+ 2.9	−4.7	−98	+ 8
26	− 1.8	−4.5	−90	+16
27	− 6.3	−3.9	−74	+23
28	−10.2	−2.9	−51	+28
29	−13.1	−1.4	−23	+30
30	−14.5	+0.3	+ 7	+30
31	−14.2	+2.0	+37	+25
Aug. 1	−12.2	+3.5	+62	+18
2	− 8.7	+4.4	+80	+ 9
3	− 4.3	+4.8	+89	0
4	+ 0.5	+4.9	+89	− 9
5	+ 5.4	+4.3	+80	−16
6	+ 9.7	+3.5	+64	−21
7	+13.2	+2.6	+43	−25
8	+15.8	+1.5	+18	−25
9	+17.3	+0.3	− 7	−25
10	+17.6	−0.9	−32	−24
11	+16.7	−2.0	−56	−19
12	+14.7	−2.9	−75	−14
13	+11.8	−3.7	−89	− 9
14	+ 8.1	−4.3	−98	− 1
15	+ 3.8	−4.6	−99	+ 6
16	− 0.8	−4.5	−93	+15
17	− 5.3	−4.0	−78	+21
18	− 9.3	−3.1	−57	+27
19	−12.4	−1.7	−30	+30
20	−14.1	0.0	0	+30
21	−14.1	+1.6	+30	+27
22	−12.5	+3.1	+57	+19
23	− 9.4	+4.1	+76	+11
24	− 5.3	+4.7	+87	+ 2
25	− 0.6	+4.8	+89	− 7
26	+ 4.2	+4.4	+82	−14
27	+ 8.6	+3.7	+68	−20
28	+12.3	+2.7	+48	−23
29	+15.0	+1.7	+25	−25
30	+16.7	+0.6	0	−26
31	+17.3		−26	

HYPERION

0h Welt-Zeit 1931	$\alpha_{tr} - \alpha_{pl}$ (s)	Diff.	$\delta_{tr} - \delta_{pl}$ (″)	Diff.
Aug. 31	+17.3	−0.6	−26	−23
Sept. 1	+16.7	−1.7	−49	−20
2	+15.0	−2.6	−69	−16
3	+12.4	−3.5	−85	−10
4	+ 8.9	−4.1	−95	− 3
5	+ 4.8	−4.4	−98	+ 4
6	+ 0.4	−4.5	−94	+12
7	− 4.1	−4.0	−82	+20
8	− 8.1	−3.3	−62	+25
9	−11.4	−2.0	−37	+29
10	−13.4	−0.5	− 8	+29
11	−13.9	+1.1	+21	+27
12	−12.8	+2.7	+48	+22
13	−10.1	+3.8	+70	+14
14	− 6.3	+4.4	+84	+ 4
15	− 1.9	+4.7	+88	− 5
16	+ 2.8	+4.3	+83	−12
17	+ 7.1	+3.8	+71	−18
18	+10.9	+3.0	+53	−22
19	+13.9	+1.9	+31	−24
20	+15.8	+0.9	+ 7	−24
21	+16.7	−0.3	−17	−23
22	+16.4	−1.2	−40	−21
23	+15.2	−2.3	−61	−17
24	+12.9	−3.1	−78	−11
25	+ 9.8	−3.8	−89	− 5
26	+ 6.0	−4.2	−94	+ 1
27	+ 1.8	−4.3	−93	+ 9
28	− 2.5	−4.1	−84	+17
29	− 6.6	−3.5	−67	+22
30	−10.1	−2.4	−45	+27
Okt. 1	−12.5	−1.0	−18	+29
2	−13.5	+0.6	+11	+28
3	−12.9	+2.1	+39	+23
4	−10.8	+3.3	+62	+15
5	− 7.5	+4.1	+77	+ 7
6	− 3.4	+4.5	+84	− 1
7	+ 1.1	+4.3	+83	− 9
8	+ 5.4	+3.9	+74	−15
9	+ 9.3		+59	

HYPERION

0h Welt-Zeit 1931	$\alpha_{tr} - \alpha_{pl}$ (s)	Diff.	$\delta_{tr} - \delta_{pl}$ (″)	Diff.
Okt. 9	+ 9.3	+3.2	+59	−20
10	+12.5	+2.2	+39	−23
11	+14.7	+1.2	+16	−24
12	+15.9	+0.2	− 8	−22
13	+16.1	−0.9	−30	−21
14	+15.2	−1.8	−51	−18
15	+13.4	−2.7	−69	−13
16	+10.7	−3.4	−82	− 8
17	+ 7.3	−3.9	−90	0
18	+ 3.4	−4.2	−90	+ 6
19	− 0.8	−4.1	−84	+13
20	− 4.9	−3.6	−71	+19
21	− 8.5	−2.7	−52	+25
22	−11.2	−1.6	−27	+27
23	−12.8	0.0	0	+28
24	−12.8	+1.4	+28	+24
25	−11.4	+2.8	+52	+17
26	− 8.6	+3.7	+69	+10
27	− 4.9	+4.2	+79	+ 2
28	− 0.7	+4.3	+81	− 6
29	+ 3.6	+3.9	+75	−12
30	+ 7.5	+3.3	+63	−17
31	+10.8	+2.6	+46	−21
Nov. 1	+13.4	+1.6	+25	−23
2	+15.0	+0.6	+ 2	−22
3	+15.6	−0.4	−20	−21
4	+15.2	−1.3	−41	−18
5	+13.9	−2.2	−59	−15
6	+11.7	−3.0	−74	−10
7	+ 8.7	−3.6	−84	− 3
8	+ 5.1	−4.0	−87	+ 3
9	+ 1.1	−4.0	−84	+10
10	− 2.9	−3.7	−74	+16
11	− 6.6	−3.2	−58	+22
12	− 9.8	−2.0	−36	+25
13	−11.8	−0.7	−11	+27
14	−12.5	+0.7	+16	+24
15	−11.8	+2.1	+40	+20
16	− 9.7	+3.2	+60	+13
17	− 6.5		+73	

0h Welt-Zeit	JAPETUS $\alpha_{tr}-\alpha_{pl}$ (s)	Diff. (s)	JAPETUS $\delta_{tr}-\delta_{pl}$ (″)	Diff. (″)
1931				
März 28	+30.3	+1.8	−21	−13
30	+32.1	+1.1	−34	−13
April 1	+33.2	+0.2	−47	−11
3	+33.4	−0.8	−58	−10
5	+32.6	−1.6	−68	− 8
7	+31.0	−2.4	−76	− 6
9	+28.6	−3.2	−82	− 4
11	+25.4	−3.9	−86	− 2
13	+21.5	−4.5	−88	+ 1
15	+17.0	−4.9	−87	+ 2
17	+12.1	−5.2	−85	+ 5
19	+ 6.9	−5.5	−80	+ 7
21	+ 1.4	−5.5	−73	+ 8
23	− 4.1	−5.5	−65	+10
25	− 9.6	−5.3	−55	+11
27	−14.9	−5.0	−44	+13
29	−19.9	−4.6	−31	+13
Mai 1	−24.5	−4.0	−18	+14
3	−28.5	−3.4	− 4	+14
5	−31.9	−2.6	+10	+14
7	−34.5	−1.8	+24	+13
9	−36.3	−1.1	+37	+13
11	−37.4	−0.2	+50	+12
13	−37.6	+0.7	+62	+10
15	−36.9	+1.6	+72	+ 8
17	−35.3	+2.4	+80	+ 7
19	−32.9	+3.2	+87	+ 5
21	−29.7	+4.0	+92	+ 3
23	−25.7	+4.7	+95	0
25	−21.0	+5.2	+95	− 2
27	−15.8	+5.6	+93	− 4
29	−10.2	+5.9	+89	− 7
31	− 4.3	+6.1	+82	− 9
Juni 2	+ 1.8	+6.1	+73	−11
4	+ 7.9	+5.9	+62	−13
6	+13.8	+5.5	+49	−14
8	+19.3	+5.0	+35	−15
10	+24.3	+4.4	+20	−17
12	+28.7	+3.6	+ 3	−17
14	+32.3		−14	

0h Welt-Zeit	JAPETUS $\alpha_{tr}-\alpha_{pl}$ (s)	Diff. (s)	JAPETUS $\delta_{tr}-\delta_{pl}$ (″)	Diff. (″)
1931				
Juni 14	+32.3	+2.7	− 14	−16
16	+35.0	+1.7	− 30	−16
18	+36.7	+0.7	− 46	−14
20	+37.4	−0.3	− 60	−13
22	+37.1	−1.4	− 73	−11
24	+35.7	−2.4	− 84	− 9
26	+33.3	−3.3	− 93	− 7
28	+30.0	−4.1	−100	− 4
30	+25.9	−4.9	−104	− 1
Juli 2	+21.0	−5.4	−105	+ 2
4	+15.6	−5.9	−103	+ 4
6	+ 9.7	−6.1	− 99	+ 7
8	+ 3.6	−6.2	− 92	+10
10	− 2.6	−6.2	− 82	+12
12	− 8.8	−5.9	− 70	+13
14	−14.7	−5.5	− 57	+15
16	−20.2	−5.1	− 42	+16
18	−25.3	−4.5	− 26	+17
20	−29.8	−3.7	− 9	+18
22	−33.5	−2.9	+ 9	+17
24	−36.4	−2.0	+ 26	+17
26	−38.4	−1.1	+ 43	+16
28	−39.5	−0.2	+ 59	+14
30	−39.7	+0.8	+ 73	+13
Aug. 1	−38.9	+1.7	+ 86	+11
3	−37.2	+2.6	+ 97	+ 8
5	−34.6	+3.4	+105	+ 6
7	−31.2	+4.2	+111	+ 3
9	−27.0	+4.9	+114	+ 1
11	−22.1	+5.4	+115	− 3
13	−16.7	+5.8	+112	− 5
15	−10.9	+6.0	+107	− 8
17	− 4.9	+6.1	+ 99	−11
19	+ 1.2	+6.1	+ 88	−13
21	+ 7.3	+5.9	+ 75	−15
23	+13.2	+5.5	+ 60	−17
25	+18.7	+4.9	+ 43	−18
27	+23.6	+4.2	+ 25	−19
29	+27.8	+3.5	+ 6	−19
31	+31.3		− 13	

0h Welt-Zeit	JAPETUS $\alpha_{tr}-\alpha_{pl}$ (s)	Diff. (s)	JAPETUS $\delta_{tr}-\delta_{pl}$ (″)	Diff. (″)
1931				
Aug. 31	+31.3	+2.6	− 13	−18
Sept. 2	+33.9	+1.6	− 31	−18
4	+35.5	+0.6	− 49	−16
6	+36.1	−0.3	− 65	−14
8	+35.8	−1.3	− 79	−12
10	+34.5	−2.3	− 91	−10
12	+32.2	−3.1	−101	− 7
14	+29.1	−3.9	−108	− 3
16	+25.2	−4.5	−111	− 1
18	+20.7	−5.0	−112	+ 2
20	+15.7	−5.4	−110	+ 5
22	+10.3	−5.6	−105	+ 7
24	+ 4.7	−5.7	− 98	+10
26	− 1.0	−5.6	− 88	+12
28	− 6.6	−5.4	− 76	+14
30	−12.0	−5.1	− 62	+15
Okt. 2	−17.1	−4.7	− 47	+16
4	−21.8	−4.1	− 31	+16
6	−25.9	−3.5	− 15	+16
8	−29.4	−2.8	+ 1	+17
10	−32.2	−2.1	+ 18	+16
12	−34.3	−1.2	+ 34	+15
14	−35.5	−0.4	+ 49	+14
16	−35.9	+0.4	+ 63	+12
18	−35.5	+1.2	+ 75	+10
20	−34.3	+1.9	+ 85	+ 9
22	−32.4	+2.7	+ 94	+ 6
24	−29.7	+3.3	+100	+ 3
26	−26.4	+3.9	+103	+ 1
28	−22.5	+4.4	+104	− 1
30	−18.1	+4.8	+103	− 4
Nov. 1	−13.3	+5.1	+ 99	− 6
3	− 8.2	+5.3	+ 93	− 8
5	− 2.9	+5.3	+ 85	−11
7	+ 2.4	+5.2	+ 74	−12
9	+ 7.6	+5.0	+ 62	−13
11	+12.6	+4.6	+ 49	−15
13	+17.2	+4.2	+ 34	−15
15	+21.4	+3.6	+ 19	−15
17	+25.0		+ 4	

Östliche Elongationen (in Welt-Zeit)

MIMAS

Datum	h	Datum	h	Datum	h	Datum	h	Datum	h
März 28	6.3	Mai 11	13.3	Juni 24	20.3	Aug. 8	3.2	Sept. 21	10.2
29	5.0	12	11.9	25	18.9	9	1.8	22	8.8
30	3.6	13	10.5	26	17.5	10	0.4	23	7.5
31	2.2	14	9.2	27	16.1	10	23.1	24	6.1
April 1	0.8	15	7.8	28	14.7	11	21.7	25	4.7
1	23.5	16	6.4	29	13.3	12	20.3	26	3.3
2	22.1	17	5.0	30	11.9	13	18.9	27	1.9
3	20.7	18	3.7	Juli 1	10.6	14	17.5	28	0.6
4	19.3	19	2.3	2	9.2	15	16.1	28	23.2
5	18.0	20	0.9	3	7.8	16	14.7	29	21.8
6	16.6	20	23.5	4	6.4	17	13.3	30	20.4
7	15.2	21	22.1	5	5.0	18	12.0	Okt. 1	19.0
8	13.8	22	20.8	6	3.6	19	10.6	2	17.6
9	12.4	23	19.4	7	2.2	20	9.2	3	16.3
10	11.0	24	18.0	8	0.8	21	7.8	4	14.9
11	9.6	25	16.6	8	23.5	22	6.4	5	13.5
12	8.3	26	15.2	9	22.1	23	5.0	6	12.1
13	6.9	27	13.8	10	20.7	24	3.6	7	10.8
14	5.5	28	12.4	11	19.3	25	2.2	8	9.4
15	4.1	29	11.0	12	17.9	26	0.9	9	8.0
16	2.8	30	9.7	13	16.5	26	23.5	10	6.6
17	1.4	31	8.3	14	15.1	27	22.1	11	5.3
18	0.0	Juni 1	6.9	15	13.7	28	20.7	12	3.9
18	22.6	2	5.5	16	12.3	29	19.3	13	2.5
19	21.2	3	4.2	17	11.0	30	17.9	14	1.1
20	19.9	4	2.8	18	9.6	31	16.5	14	23.8
21	18.5	5	1.4	19	8.2	Sept. 1	15.2	15	22.4
22	17.1	6	0.0	20	6.8	2	13.8	16	21.0
23	15.7	6	22.6	21	5.5	3	12.4	17	19.6
24	14.3	7	21.3	22	4.1	4	11.0	18	18.2
25	12.9	8	19.9	23	2.7	5	9.7	19	16.9
26	11.5	9	18.5	24	1.3	6	8.3	20	15.5
27	10.1	10	17.1	24	23.9	7	6.9	21	14.1
28	8.8	11	15.7	25	22.6	8	5.5	22	12.7
29	7.4	12	14.3	26	21.2	9	4.2	23	11.4
30	6.0	13	12.9	27	19.8	10	2.8	24	10.0
Mai 1	4.6	14	11.5	28	18.4	11	1.4	25	8.6
2	3.2	15	10.2	29	17.0	12	0.0	26	7.2
3	1.8	16	8.8	30	15.6	12	22.7	27	5.9
4	0.4	17	7.4	31	14.2	13	21.3	28	4.5
4	23.0	18	6.0	Aug. 1	12.8	14	19.9	29	3.1
5	21.7	19	4.6	2	11.5	15	18.5	30	1.7
6	20.3	20	3.2	3	10.1	16	17.1	31	0.4
7	18.9	21	1.8	4	8.7	17	15.7	31	23.0
8	17.5	22	0.4	5	7.3	18	14.3	Nov. 1	21.6
9	16.1	22	23.1	6	6.0	19	13.0	2	20.2
10	14.7	23	21.7	7	4.6	20	11.6	3	18.8

Östliche Elongationen (in Welt-Zeit)

MIMAS

Datum	h
Nov. 4	17.5
5	16.1
6	14.7
7	13.3
8	12.0
9	10.6
10	9.2
11	7.8
12	6.5
13	5.1
14	3.7
15	2.3
16	1.0
16	23.6
17	22.2

ENCELADUS

Datum	h
März 28	17.9
30	2.8
31	11.6
April 1	20.5
3	5.4
4	14.3
5	23.2
7	8.1
8	17.0
10	1.9
11	10.8
12	19.6
14	4.5
15	13.4
16	22.3
18	7.2
19	16.1
21	0.9
22	9.8
23	18.7
25	3.6
26	12.5
27	21.4
29	6.2
30	15.1
Mai 2	0.0
3	8.9

ENCELADUS

Datum	h
Mai 4	17.8
6	2.7
7	11.5
8	20.4
10	5.3
11	14.2
12	23.1
14	7.9
15	16.8
17	1.7
18	10.6
19	19.5
21	4.4
22	13.2
23	22.1
25	7.0
26	15.9
28	0.7
29	9.6
30	18.5
Juni 1	3.4
2	12.2
3	21.1
5	6.0
6	14.9
7	23.7
9	8.6
10	17.5
12	2.4
13	11.2
14	20.1
16	5.0
17	13.9
18	22.7
20	7.6
21	16.5
23	1.4
24	10.2
25	19.1
27	4.0
28	12.9
29	21.7
Juli 1	6.6
2	15.5
4	0.4
5	9.2
6	18.1

ENCELADUS

Datum	h
Juli 8	3.0
9	11.9
10	20.7
12	5.6
13	14.5
14	23.3
16	8.2
17	17.1
19	2.0
20	10.8
21	19.7
23	4.6
24	13.5
25	22.3
27	7.2
28	16.1
30	1.0
31	9.9
Aug. 1	18.8
3	3.6
4	12.5
5	21.4
7	6.3
8	15.2
10	0.1
11	8.9
12	17.8
14	2.7
15	11.6
16	20.5
18	5.3
19	14.2
20	23.1
22	8.0
23	16.9
25	1.8
26	10.6
27	19.5
29	4.4
30	13.3
31	22.2
Sept. 2	7.1
3	15.9
5	0.8
6	9.7
7	18.6
9	3.5

ENCELADUS

Datum	h
Sept. 10	12.4
11	21.2
13	6.1
14	15.0
15	23.9
17	8.8
18	17.7
20	2.5
21	11.4
22	20.3
24	5.2
25	14.1
26	23.0
28	7.8
29	16.7
Okt. 1	1.6
2	10.5
3	19.4
5	4.3
6	13.2
7	22.1
9	7.0
10	15.9
12	0.8
13	9.7
14	18.6
16	3.5
17	12.4
18	21.3
20	6.2
21	15.1
23	0.0
24	8.9
25	17.7
27	2.6
28	11.5
29	20.4
31	5.3
Nov. 1	14.2
2	23.1
4	8.0
5	16.9
7	1.8
8	10.7
9	19.6
11	4.5
12	13.4

ENCELADUS

Datum	h
Nov. 13	22.3
15	7.2
16	16.1
18	1.0

TETHYS

Datum	h
März 29	14.4
31	11.7
April 2	9.0
4	6.3
6	3.7
8	1.0
9	22.3
11	19.6
13	16.9
15	14.2
17	11.5
19	8.8
21	6.1
23	3.4
25	0.7
26	22.0
28	19.3
30	16.6
Mai 2	14.0
4	11.3
6	8.6
8	5.9
10	3.2
12	0.5
13	21.8
15	19.1
17	16.4
19	13.6
21	10.9
23	8.2
25	5.5
27	2.8
29	0.1
30	21.4
Juni 1	18.7
3	16.0
5	13.3
7	10.6

Östliche Elongationen (in Welt-Zeit)

TETHYS

Datum	h
Juni 9	7.9
11	5.2
13	2.5
14	23.8
16	21.1
18	18.4
20	15.6
22	12.9
24	10.2
26	7.5
28	4.8
30	2.1
Juli 1	23.4
3	20.7
5	17.9
7	15.2
9	12.5
11	9.8
13	7.1
15	4.4
17	1.7
18	23.0
20	20.3
22	17.5
24	14.8
26	12.1
28	9.4
30	6.7
Aug. 1	4.0
3	1.3
4	22.6
6	19.9
8	17.2
10	14.5
12	11.8
14	9.1
16	6.4
18	3.7
20	1.0
21	22.3
23	19.5
25	16.8
27	14.1
29	11.4
31	8.7
Sept. 2	6.0
4	3.3

TETHYS

Datum	h
Sept. 6	0.6
7	22.0
9	19.3
11	16.6
13	13.9
15	11.2
17	8.5
19	5.8
21	3.1
23	0.4
24	21.8
26	19.1
28	16.4
30	13.7
Okt. 2	11.0
4	8.3
6	5.6
8	2.9
10	0.3
11	21.6
13	18.9
15	16.2
17	13.5
19	10.8
21	8.2
23	5.5
25	2.8
27	0.1
28	21.4
30	18.8
Nov. 1	16.1
3	13.4
5	10.8
7	8.1
9	5.4
11	2.8
13	0.1
14	21.4
16	18.8
18	16.1

DIONE

Datum	h
März 28	11.8
31	5.5
April 2	23.3
April 5	17.0
8	10.7
11	4.4
13	22.1
16	15.8
19	9.5
22	3.2
24	20.9
27	14.6
30	8.3
Mai 3	2.0
5	19.6
8	13.3
11	7.0
14	0.7
16	18.4
19	12.0
22	5.7
24	23.3
27	17.0
30	10.7
Juni 2	4.3
4	22.0
7	15.6
10	9.3
13	2.9
15	20.6
18	14.2
21	7.9
24	1.5
26	19.2
29	12.8
Juli 2	6.5
5	0.1
7	17.8
10	11.4
13	5.1
15	22.7
18	16.3
21	10.0
24	3.6
26	21.3
29	14.9
Aug. 1	8.6
4	2.3
6	19.9
9	13.6
Aug. 12	7.2
15	0.9
17	18.6
20	12.3
23	5.9
25	23.6
28	17.2
31	10.9
Sept. 3	4.6
5	22.3
8	15.9
11	9.6
14	3.3
16	21.0
19	14.7
22	8.4
25	2.0
27	19.7
30	13.4
Okt. 3	7.1
6	0.8
8	18.5
11	12.3
14	6.0
16	23.7
19	17.4
22	11.1
25	4.8
27	22.6
30	16.3
Nov. 2	10.0
5	3.7
7	21.4
10	15.1
13	8.9
16	2.6
18	20.3

RHEA

Datum	h
März 29	19.5
April 3	8.0
7	20.5
12	9.0
16	21.4
21	9.9
Apr. 25	22.3
30	10.7
Mai 4	23.1
9	11.5
13	23.9
18	12.3
23	0.7
27	13.1
Juni 1	1.4
5	13.8
10	2.1
14	14.4
19	2.8
23	15.1
28	3.4
Juli 2	15.8
7	4.1
11	16.5
16	4.8
20	17.1
25	5.4
29	17.7
Aug. 3	6.0
7	18.4
12	6.7
16	19.0
21	7.4
25	19.7
30	8.1
Sept. 3	20.5
8	8.9
12	21.2
17	9.6
21	22.0
26	10.5
30	22.9
Okt. 5	11.4
9	23.9
14	12.3
19	0.8
23	13.3
28	1.9
Nov. 1	14.4
6	2.9
10	15.4
15	3.9
19	16.4

Elongationen und Konjunktionen (in Welt-Zeit)

TITAN

		h	
März	29	13.4	Unt. Konj.
April	2	16.9	Westl. El.
	6	13.5	Ob. Konj.
	10	9.7	Östl. El.
	14	12.9	Unt. Konj.
	18	16.3	Westl. El.
	22	12.6	Ob. Konj.
	26	8.8	Östl. El.
	30	11.8	Unt. Konj.
Mai	4	15.1	Westl. El.
	8	11.4	Ob. Konj.
	12	7.4	Östl. El.
	16	10.4	Unt. Konj.
	20	13.5	Westl. El.
	24	9.7	Ob. Konj.
	28	5.6	Östl. El.
Juni	1	8.5	Unt. Konj.
	5	11.5	Westl. El.
	9	7.6	Ob. Konj.
	13	3.5	Östl. El.
	17	6.1	Unt. Konj.
	21	9.2	Westl. El.
	25	5.3	Ob. Konj.
	29	1.0	Östl. El.
Juli	3	3.5	Unt. Konj.
	7	6.6	Westl. El.
	11	2.8	Ob. Konj.
	14	22.4	Östl. El.
	19	0.9	Unt. Konj.
	23	4.0	Westl. El.
	27	0.3	Ob. Konj.
	30	19.8	Östl. El.
Aug.	3	22.3	Unt. Konj.
	8	1.5	Westl. El.
	11	21.9	Ob. Konj.
	15	17.4	Östl. El.
	19	19.9	Unt. Konj.
	23	23.2	Westl. El.
	27	19.8	Ob. Konj.
	31	15.4	Östl. El.
Sept.	4	17.8	Unt. Konj.

TITAN

		h	
Sept.	8	21.3	Westl. El.
	12	18.0	Ob. Konj.
	16	13.7	Östl. El.
	20	16.3	Unt. Konj.
	24	19.9	Westl. El.
	28	16.7	Ob. Konj.
Okt.	2	12.5	Östl. El.
	6	15.2	Unt. Konj.
	10	19.0	Westl. El.
	14	15.9	Ob. Konj.
	18	11.8	Östl. El.
	22	14.7	Unt. Konj.
	26	18.6	Westl. El.
	30	15.5	Ob. Konj.
Nov.	3	11.5	Östl. El.
	7	14.6	Unt. Konj.
	11	18.5	Westl. El.
	15	15.4	Ob. Konj.

HYPERION

		h	
März	29	23.9	Ob. Konj.
April	4	18.4	Östl. El.
	10	22.1	Unt. Konj.
	15	16.8	Westl. El.
	20	5.2	Ob. Konj.
	26	0.2	Östl. El.
Mai	2	3.2	Unt. Konj.
	6	21.4	Westl. El.
	11	9.9	Ob. Konj.
	17	5.2	Östl. El.
	23	7.7	Unt. Konj.
	28	1.6	Westl. El.
Juni	1	14.1	Ob. Konj.
	7	9.3	Östl. El.
	13	11.8	Unt. Konj.
	18	5.6	Westl. El.
	22	17.9	Ob. Konj.
	28	13.0	Östl. El.
Juli	4	15.7	Unt. Konj.
	9	9.6	Westl. El.
	13	21.8	Ob. Konj.
	19	16.9	Östl. El.
	25	19.9	Unt. Konj.
	30	14.1	Westl. El.
Aug.	4	2.3	Ob. Konj.
	9	21.5	Östl. El.
	16	1.0	Unt. Konj.
	20	19.5	Westl. El.
	25	7.8	Ob. Konj.
	31	3.3	Östl. El.
Sept.	6	7.4	Unt. Konj.
	11	2.1	Westl. El.
	15	14.7	Ob. Konj.
	21	11.0	Östl. El.
	27	15.4	Unt. Konj.
Okt.	2	10.0	Westl. El.
	6	23.1	Ob. Konj.
	12	20.5	Östl. El.
	19	1.0	Unt. Konj.
	23	19.3	Westl. El.
	28	9.1	Ob. Konj.
Nov.	3	7.7	Östl. El.
	9	12.0	Unt. Konj.
	14	5.9	Westl. El.

JAPETUS

		h	
April	2	4.5	Östl. El.
	21	18.5	Unt. Konj.
Mai	12	14.3	Westl. El.
Juni	1	16.0	Ob. Konj.
	20	8.0	Östl. El.
Juli	9	11.1	Unt. Konj.
	29	22.0	Westl. El.
Aug.	18	22.5	Ob. Konj.
Sept.	6	16.9	Östl. El.
	26	0.3	Unt. Konj.
Okt.	16	21.6	Westl. El.
Nov.	6	10.5	Ob. Konj.
	25	16.6	Östl. El.

Welt-Zeit			
Jan.	1	13ʰ	☿ im Perihel
	3	10	☉ in Erdnähe
	4	16	♃ ☌ ☾
	5	12	♀ im Perihel
	5	14	♄ ☌ ☉
	6	3	☿ untere ☌ ☉
	6	8	☿ ☌ ♄, ☿ 2° 28′ N.
	6	15	♂ ☌ ☾
	6	18	♃ ☍ ☉
	8	0	♆ ☌ ☾
	14	23	♀ ☌ ☾
	17	0	☿ ☌ ☾
	17	2	☿ stationär
	17	18	♄ ☌ ☾
	25	0	♅ ☌ ☾
	25	14	♂ in Erdnähe
	27	19	♂ ☍ ☉
	28	18	☿ gr. westl. El. 24° 54′
	31	22	♃ ☌ ☾
Febr.	1	19ʰ	☿ ☌ ♄, ☿ 0° 3′ N.
	1	22	♀ gr. westl. El. 46° 55′
	2	11	♂ ☌ ☾
	4	9	♆ ☌ ☾
	13	8	♀ ☌ ☾
	14	6	♄ ☌ ☾
	14	13	☿ im Aphel
	15	15	☿ ☌ ☾
	21	9	♅ ☌ ☾
	24	0	♆ ☍ ☉
	25	2	♀ ☌ ♄, ♀ 1° 43′ N.
	28	5	♃ ☌ ☾
März	1	10ʰ	♂ ☌ ☾
	3	19	♆ ☌ ☾
	7	8	♃ stationär
	9	4	♂ stationär
	13	16	♄ ☌ ☾
	15	5	♀ ☌ ☾
	16	0	☿ obere ☌ ☉
	19	16	☿ ☌ ☾
	20	18	♅ ☌ ☾
	21	14	Frühlingsanfang
	26	7	☿ ☌ ♅, ☿ 0° 45′ N.
	27	14	♃ ☌ ☾
	28	22	♂ ☌ ☾
	30	12	☿ im Perihel
	31	5	♆ ☌ ☾
April	1	5ʰ	♂ im Aphel
	2	—	☾ tot. Finsternis
	6	2	♅ ☌ ☉
	10	2	♄ ☌ ☾
	10	11	☿ gr. östl. El. 19° 27′
	14	14	♀ ☌ ☾
	17	4	♅ ☌ ☾
	18	—	☉ part. Finsternis
	19	9	☿ ☌ ☾
	20	3	☿ stationär
	24	1	♃ ☌ ☾
	25	19	♂ ☌ ☾
	27	12	♆ ☌ ☾
	27	20	♀ im Aphel
	30	10	☿ untere ☌ ☉
Mai	3	17ʰ	♄ stationär
	7	11	♄ ☌ ☾
	10	2	♀ ☌ ♅, ♀ 1° 13′ S.
	12	17	☿ stationär
	13	12	☿ im Aphel
	14	14	♅ ☌ ☾
	15	2	♀ ☌ ☾
	15	4	♆ stationär
	16	1	☿ ☌ ☾
	21	14	♃ ☌ ☾
	23	22	♂ ☌ ☾
	24	18	♆ ☌ ☾
	27	17	☿ gr. westl. El. 24° 57′
Juni	3	19ʰ	♄ ☌ ☾
	11	0	♅ ☌ ☾
	14	8	♀ ☌ ☾
	14	21	☿ ☌ ☾
	16	10	♂ ☌ ♆, ♂ 0° 28′ N.
	18	5	♃ ☌ ☾
	21	1	♆ ☌ ☾
	21	5	♂ ☌ ☾
	22	9	Sommersanfang
	26	12	☿ im Perihel
	29	19	☿ obere ☌ ☉
Juli	1	0ʰ	♄ ☌ ☾
	5	22	☉ in Erdferne
	8	10	♅ ☌ ☾

Konstellationen 1931

	Welt-Zeit		
Juli	9	20^h	☿ ☌ ♃, ☿ 1° 29′ N.
	13	8	♄ ☍ ☉
	14	8	♀ ☌ ☾
	16	0	♃ ☌ ☾
	16	19	☿ ☌ ☾
	18	9	♆ ☌ ☾
	19	15	♂ ☌ ☾
	25.	20	♃ ☌ ☉
	26	5	♅ stationär
	28	4	♄ ☌ ☾
Aug.	1	19^h	☿ ☌ ♆, ☿ 1° 13′ S.
	4	18	♅ ☌ ☾
	6	18	♀ ☌ ♃, ♀ 0° 25′ N.
	8	14	☿ gr. östl. El. 27° 23′
	9	12	☿ im Aphel
	12	19	♃ ☌ ☾
	13	7	♀ ☌ ☾
	14	19	♆ ☌ ☾
	15	14	☿ ☌ ☾
	17	5	♂ ☌ ☾
	18	3	♀ im Perihel
	21	17	☿ stationär
	24	7	♄ ☌ ☾
	29	21	♆ ☌ ☉
	31	18	♀ ☌ ♆, ♀ 0° 42′ N.
Sept.	1	0^h	♅ ☌ ☾
	4	10	☿ ☌ ♀, ☿ 5° 45′ S.
	5	0	☿ untere ☌ ☉
	8	3	♀ obere ☌ ☉
	9	16	♃ ☌ ☾
	10	6	☿ ☌ ♆, ☿ 3° 19′ S.
	11	7	☿ ☌ ☾
	11	7	♆ ☌ ☾
	12	—	☉ part. Finsternis
	12	6	♀ ☌ ☾
	13	14	☿ stationär
	14	21	♂ ☌ ☾
	17	8	☿ ☌ ♆, ☿ 0° 56′ S.
	20	12	♄ ☌ ☾
	21	3	☿ gr. westl. El. 17° 52′
	21	17	♄ stationär
	22	11	☿ im Perihel
	24	0	Herbstanfang
	26	—	☾ tot. Finsternis
	28	4	♅ ☌ ☾
Okt.	7	10^h	♃ ☌ ☾
	8	20	♆ ☌ ☾
	11	—	☉ part. Finsternis
	11	5	☿ ☌ ☾
	11	16	♅ ☍ ☉
	12	6	♀ ☌ ☾
	13	16	♂ ☌ ☾
	17	19	♄ ☌ ☾
	18	16	☿ obere ☌ ☉
	25	8	♅ ☌ ☾
Nov.	4	0^h	♃ ☌ ☾
	5	6	♆ ☌ ☾
	5	10	☿ im Aphel
	11	0	☿ ☌ ☾
	11	5	♀ ☌ ☾
	11	12	♂ ☌ ☾
	14	7	♄ ☌ ☾
	19	3	♀ ☌ ♂, ♀ 0° 4′ N.
	21	1	☿ ☌ ♂, ☿ 1° 39′ S.
	21	13	♅ ☌ ☾
Dez.	1	10^h	♃ ☌ ☾
	2	13	♆ ☌ ☾
	3	3	☿ gr. östl. El. 21° 19′
	8	12	♀ im Aphel
	10	3	♃ stationär
	10	10	♂ ☌ ☾
	10	20	☿ ☌ ☾
	11	5	♀ ☌ ☾
	11	15	♆ stationär
	11	19	☿ stationär
	11	21	♄ ☌ ☾
	16	5	☿ ☌ ♂, ☿ 1° 20′ N.
	18	20	♅ ☌ ☾
	19	10	☿ im Perihel
	19	11	♀ ☌ ♄, ♀ 1° 32′ S.
	21	9	☿ untere ☌ ☉
	22	19	Wintersanfang
	26	0	♅ stationär
	28	15	♃ ☌ ☾
	29	19	♆ ☌ ☾
	31	18	☿ stationär

Präzession in Rektaszension (p_α) und Deklination (p_δ)

$\alpha \diagdown \delta$	p_α +60°	+50°	+40°	+30°	+20°	+10°	0°	−10°	−20°	−30°	−40°	−50°	−60°	p_δ
h	s	s	s	s	s	s	s	s	s	s	s	s	s	"
0	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0
1	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	+19.4
2	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	+17.4
3	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	+14.2
4	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	+10.0
5	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	+ 5.2
6	5.39	4.67	4.19	3.84	3.56	3.31	3.07	2.84	2.59	2.30	1.95	1.48	0.76	0.0
7	5.31	4.61	4.16	3.82	3.54	3.30	3.07	2.84	2.60	2.33	1.99	1.53	0.84	− 5.2
8	5.08	4.45	4.04	3.74	3.49	3.28	3.07	2.87	2.65	2.41	2.10	1.69	1.07	−10.0
9	4.71	4.20	3.87	3.62	3.42	3.24	3.07	2.91	2.73	2.53	2.28	1.95	1.44	−14.2
10	4.23	3.87	3.63	3.46	3.32	3.19	3.07	2.95	2.83	2.69	2.51	2.28	1.92	−17.4
11	3.67	3.48	3.36	3.27	3.20	3.13	3.07	3.01	2.95	2.87	2.78	2.66	2.47	−19.4
12	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	−20.0
13	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	−19.4
14	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	−17.4
15	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	−14.2
16	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	−10.0
17	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	− 5.2
18	0.76	1.48	1.95	2.30	2.59	2.84	3.07	3.31	3.56	3.84	4.19	4.67	5.39	0.0
19	0.84	1.53	1.99	2.33	2.60	2.84	3.07	3.30	3.54	3.82	4.16	4.61	5.31	+ 5.2
20	1.07	1.69	2.10	2.41	2.65	2.87	3.07	3.28	3.49	3.74	4.04	4.45	5.08	+10.0
21	1.44	1.95	2.28	2.53	2.73	2.91	3.07	3.24	3.42	3.62	3.87	4.20	4.71	+14.2
22	1.92	2.28	2.51	2.69	2.83	2.95	3.07	3.19	3.32	3.46	3.63	3.87	4.23	+17.4
23	2.47	2.66	2.78	2.87	2.95	3.01	3.07	3.13	3.20	3.27	3.36	3.48	3.67	+19.4
24	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	+20.0

Präzessionswerte und Schiefe der Ekliptik

Zeit	m	n	ψ	$\log \pi$	Π	ε
1900.0	3.07233 s	20.0468"	50.2564"	9.67309	173° 57.06'	23° 27' 8.26"
1905.0	3.07243	20.0464	50.2575	9.67305	173 59.80	23 27 5.92
1910.0	3.07252	20.0460	50.2586	9.67302	174 2.53	23 27 3.58
1915.0	3.07261	20.0456	50.2597	9.67299	174 5.27	23 27 1.23
1920.0	3.07271	20.0451	50.2608	9.67296	174 8.01	23 26 58.89
1925.0	3.07280	20.0447	50.2620	9.67293	174 10.75	23 26 56.55
1930.0	3.07289	20.0443	50.2631	9.67290	174 13.49	23 26 54.21
1935.0	3.07299	20.0438	50.2642	9.67287	174 16.23	23 26 51.87
1940.0	3.07308	20.0434	50.2653	9.67284	174 18.97	23 26 49.52

Hilfstafeln

Länge λ	Präzession in Länge p_λ — Breite β: 0°	+1°	+2°	+3°	+4°	+5°	+6°	+7°	+8°	+9°	Länge λ	Präz. in Br. p_β — Präzession p_β	
0°	50.262″	.254″	.245″	.237″	.229″	50.221″	.213″	.205″	.196″	.188″	0°	+0.048″	80
10	.262	.254	.246	.238	.230	.222	.214	.206	.198	.190	10	+0.128	77
20	.262	.255	.247	.240	.232	.225	.217	.210	.202	.195	20	+0.205	70
30	.262	.255	.249	.242	.235	.229	.222	.215	.208	.202	30	+0.275	63
40	50.262	.256	.251	.245	.239	50.233	.227	.221	.216	.210	40	+0.338	52
50	.262	.257	.253	.248	.243	.239	.234	.229	.225	.220	50	+0.390	40
60	.262	.259	.255	.252	.249	.245	.242	.238	.235	.231	60	+0.430	26
70	.262	.260	.258	.256	.254	.252	.250	.248	.246	.244	70	+0.456	14
80	50.262	.261	.261	.260	.259	50.259	.258	.258	.257	.257	80	+0.470	1
90	.262	.263	.263	.264	.265	.266	.267	.268	.269	.270	90	+0.469	16
100	.262	.264	.267	.269	.271	.273	.275	.277	.280	.282	100	+0.453	29
110	.262	.266	.269	.273	.277	.280	.284	.287	.291	.294	110	+0.424	42
120	50.262	.267	.271	.276	.281	50.286	.291	.296	.301	.306	120	+0.382	54
130	.262	.268	.274	.280	.286	.292	.298	.304	.310	.316	130	+0.328	63
140	.262	.269	.275	.282	.289	.296	.303	.310	.317	.324	140	+0.265	72
150	.262	.270	.277	.285	.292	.300	.307	.315	.322	.330	150	+0.193	77
160	50.262	.270	.278	.286	.294	50.302	.310	.318	.326	.334	160	+0.116	81
170	.262	.270	.279	.287	.295	.303	.311	.319	.328	.336	170	+0.035	83
180	.262	.270	.279	.287	.295	.303	.311	.319	.328	.336	180	−0.048	80
190	.262	.270	.278	.286	.294	.302	.310	.318	.326	.334	190	−0.128	77
200	50.262	.269	.277	.284	.292	50.299	.307	.314	.322	.329	200	−0.205	70
210	.262	.269	.275	.282	.289	.295	.302	.309	.316	.322	210	−0.275	63
220	.262	.268	.273	.279	.285	.291	.297	.303	.308	.314	220	−0.338	52
230	.262	.267	.271	.276	.281	.285	.290	.295	.299	.304	230	−0.390	40
240	50.262	.265	.269	.272	.275	50.279	.282	.286	.289	.293	240	−0.430	26
250	.262	.264	.266	.268	.270	.272	.274	.276	.278	.280	250	−0.456	14
260	.262	.263	.263	.264	.265	.265	.266	.266	.267	.267	260	−0.470	1
270	.262	.261	.261	.260	.259	.258	.257	.256	.255	.254	270	−0.469	16
280	50.262	.260	.257	.255	.253	50.251	.249	.247	.244	.242	280	−0.453	29
290	.262	.258	.255	.251	.247	.244	.240	.237	.233	.230	290	−0.424	42
300	.262	.257	.253	.248	.243	.238	.233	.228	.223	.218	300	−0.382	54
310	.262	.256	.250	.244	.238	.232	.226	.220	.214	.208	310	−0.328	63
320	50.262	.255	.249	.242	.235	50.228	.221	.214	.207	.200	320	−0.265	72
330	.262	.254	.247	.239	.232	.224	.217	.209	.202	.194	330	−0.193	77
340	.262	.254	.246	.238	.230	.222	.214	.206	.198	.190	340	−0.116	81
350	.262	.254	.245	.237	.229	.221	.213	.205	.196	.188	350	−0.035	83
360	50.262	.254	.245	.237	.229	50.221	.213	.205	.196	.188	360	+0.048	

Länge λ	Präzession in Länge p_λ — Breite β 0°	−1°	−2°	−3°	−4°	−5°	−6°	−7°	−8°	−9°	Länge λ	Präz. in Br. p_β — Präzession p_β	
0°	50.262″	.270″	.279″	.287″	.295″	50.303″	.311″	.319″	.328″	.336″	0°	+0.048″	80
10	.262	.270	.278	.286	.294	.302	.310	.318	.326	.334	10	+0.128	77
20	.262	.269	.277	.284	.292	.299	.307	.314	.322	.329	20	+0.205	70
30	.262	.269	.275	.282	.289	.295	.302	.309	.316	.322	30	+0.275	63
40	50.262	.268	.273	.279	.285	50.291	.297	.303	.308	.314	40	+0.338	52
50	.262	.267	.271	.276	.281	.285	.290	.295	.299	.304	50	+0.390	40
60	.262	.265	.269	.272	.275	.279	.282	.286	.289	.293	60	+0.430	26
70	.262	.264	.266	.268	.270	.272	.274	.276	.278	.280	70	+0.456	14
80	50.262	.263	.263	.264	.265	50.265	.266	.266	.267	.267	80	+0.470	−1
90	.262	.261	.261	.260	.259	.258	.257	.256	.255	.254	90	+0.469	16
100	.262	.260	.257	.255	.253	.251	.249	.247	.244	.242	100	+0.453	29
110	.262	.258	.255	.251	.247	.244	.240	.237	.233	.230	110	+0.424	42
120	50.262	.257	.253	.248	.243	50.238	.233	.228	.223	.218	120	+0.382	54
130	.262	.256	.250	.244	.238	.232	.226	.220	.214	.208	130	+0.328	63
140	.262	.255	.249	.242	.235	.228	.221	.214	.207	.200	140	+0.265	72
150	.262	.254	.247	.239	.232	.224	.217	.209	.202	.194	150	+0.193	77
160	50.262	.254	.246	.238	.230	50.222	.214	.206	.198	.190	160	+0.116	81
170	.262	.254	.245	.237	.229	.221	.213	.205	.196	.188	170	+0.035	83
180	.262	.254	.245	.237	.229	.221	.213	.205	.196	.188	180	−0.048	80
190	.262	.254	.246	.238	.230	.222	.214	.206	.198	.190	190	−0.128	77
200	50.262	.255	.247	.240	.232	50.225	.217	.210	.202	.195	200	−0.205	70
210	.262	.255	.249	.242	.235	.229	.222	.215	.208	.202	210	−0.275	63
220	.262	.256	.251	.245	.239	.233	.227	.221	.216	.210	220	−0.338	52
230	.262	.257	.253	.248	.243	.239	.234	.229	.225	.220	230	−0.390	40
240	50.262	.259	.255	.252	.249	50.245	.242	.238	.235	.231	240	−0.430	26
250	.262	.260	.258	.256	.254	.252	.250	.248	.246	.244	250	−0.456	14
260	.262	.261	.261	.260	.259	.259	.258	.258	.257	.257	260	−0.470	−1
270	.262	.263	.263	.264	.265	.266	.267	.268	.269	.270	270	−0.469	16
280	50.262	.264	.267	.269	.271	50.273	.275	.277	.280	.282	280	−0.453	29
290	.262	.266	.269	.273	.277	.280	.284	.287	.291	.294	290	−0.424	42
300	.262	.267	.271	.276	.281	.286	.291	.296	.301	.306	300	−0.382	54
310	.262	.268	.274	.280	.286	.292	.298	.304	.310	.316	310	−0.328	63
320	50.262	.269	.275	.282	.289	50.296	.303	.310	.317	.324	320	−0.265	72
330	.262	.270	.277	.285	.292	.300	.307	.315	.322	.330	330	−0.193	77
340	.262	.270	.278	.286	.294	.302	.310	.318	.326	.334	340	−0.116	81
350	.262	.270	.279	.287	.295	.303	.311	.319	.328	.336	350	−0.035	83
360	50.262	.270	.279	.287	.295	50.303	.311	.319	.328	.336	360	+0.048	

Halber Tagbogen

δ \ φ	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
°	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
−30	4 45.4	4 38.8	4 31.8	4 24.4	4 16.5	4 8.1	3 58.9	3 48.9	3 37.9	3 25.7	3 11.8
29	4 48.6	4 42.3	4 35.6	4 28.6	4 21.1	4 13.0	4 4.3	3 54.9	3 44.5	3 33.0	3 20.1
28	4 51.7	4 45.7	4 39.3	4 32.6	4 25.5	4 17.8	4 9.6	4 0.7	3 50.9	3 40.1	3 28.0
27	4 54.7	4 49.0	4 42.9	4 36.5	4 29.8	4 22.5	4 14.7	4 6.2	3 57.0	3 46.9	3 35.5
26	4 57.7	4 52.2	4 46.5	4 40.4	4 33.9	4 27.1	4 19.7	4 11.7	4 3.0	3 53.4	3 42.8
25	5 0.6	4 55.4	4 49.9	4 44.2	4 38.0	4 31.5	4 24.5	4 16.9	4 8.7	3 59.7	3 49.7
24	5 3.5	4 58.5	4 53.3	4 47.8	4 42.0	4 35.8	4 29.2	4 22.0	4 14.3	4 5.8	3 56.5
23	5 6.3	5 1.6	4 56.6	4 51.4	4 45.9	4 40.1	4 33.8	4 27.0	4 19.7	4 11.8	4 3.0
22	5 9.0	5 4.6	4 59.9	4 55.0	4 49.7	4 44.2	4 38.3	4 31.9	4 25.0	4 17.5	4 9.3
21	5 11.7	5 7.5	5 3.1	4 58.4	4 53.5	4 48.3	4 42.7	4 36.7	4 30.2	4 23.2	4 15.4
−20	5 14.4	5 10.4	5 6.2	5 1.8	4 57.2	4 52.3	4 47.0	4 41.3	4 35.3	4 28.7	4 21.4
19	5 17.0	5 13.3	5 9.3	5 5.2	5 0.8	4 56.2	4 51.2	4 45.9	4 40.2	4 34.0	4 27.3
18	5 19.6	5 16.1	5 12.4	5 8.5	5 4.4	5 0.0	4 55.4	4 50.4	4 45.1	4 39.3	4 33.0
17	5 22.2	5 18.9	5 15.4	5 11.7	5 7.9	5 3.8	4 59.5	4 54.9	4 49.9	4 44.5	4 38.6
16	5 24.7	5 21.6	5 18.4	5 14.9	5 11.4	5 7.5	5 3.5	4 59.2	4 54.6	4 49.5	4 44.1
15	5 27.2	5 24.3	5 21.3	5 18.1	5 14.8	5 11.2	5 7.5	5 3.5	4 59.2	4 54.5	4 49.5
14	5 29.7	5 27.0	5 24.2	5 21.3	5 18.2	5 14.9	5 11.4	5 7.7	5 3.7	4 59.5	4 54.8
13	5 32.1	5 29.7	5 27.1	5 24.4	5 21.5	5 18.5	5 15.3	5 11.9	5 8.2	5 4.3	5 0.0
12	5 34.6	5 32.3	5 29.9	5 27.4	5 24.8	5 22.1	5 19.1	5 16.0	5 12.6	5 9.0	5 5.1
11	5 37.0	5 34.9	5 32.7	5 30.5	5 28.1	5 25.6	5 22.9	5 20.1	5 17.0	5 13.7	5 10.2
−10	5 39.4	5 37.5	5 35.5	5 33.5	5 31.3	5 29.1	5 26.7	5 24.1	5 21.4	5 18.4	5 15.2
9	5 41.7	5 40.1	5 38.3	5 36.5	5 34.6	5 32.5	5 30.4	5 28.1	5 25.7	5 23.0	5 20.2
8	5 44.1	5 42.6	5 41.1	5 39.5	5 37.8	5 36.0	5 34.1	5 32.1	5 29.9	5 27.6	5 25.1
7	5 46.4	5 45.2	5 43.8	5 42.4	5 41.0	5 39.4	5 37.8	5 36.0	5 34.2	5 32.2	5 30.0
6	5 48.8	5 47.7	5 46.6	5 45.4	5 44.1	5 42.8	5 41.4	5 40.0	5 38.4	5 36.7	5 34.9
5	5 51.1	5 50.2	5 49.3	5 48.3	5 47.3	5 46.2	5 45.1	5 43.9	5 42.6	5 41.2	5 39.7
4	5 53.4	5 52.7	5 52.0	5 51.2	5 50.4	5 49.6	5 48.7	5 47.8	5 46.8	5 45.7	5 44.5
3	5 55.8	5 55.2	5 54.7	5 54.1	5 53.6	5 53.0	5 52.3	5 51.6	5 50.9	5 50.1	5 49.3
2	5 58.1	5 57.7	5 57.4	5 57.1	5 56.7	5 56.3	5 55.9	5 55.5	5 55.1	5 54.6	5 54.1
− 1	6 0.4	6 0.2	6 0.1	6 0.0	5 59.8	5 59.7	5 59.5	5 59.4	5 59.2	5 59.0	5 58.9
0	6 2.7	6 2.7	6 2.8	6 2.9	6 2.9	6 3.0	6 3.1	6 3.2	6 3.4	6 3.5	6 3.6
+ 1	6 5.0	6 5.2	6 5.5	6 5.8	6 6.1	6 6.4	6 6.7	6 7.1	6 7.5	6 7.9	6 8.4
2	6 7.3	6 7.7	6 8.2	6 8.7	6 9.2	6 9.8	6 10.3	6 11.0	6 11.6	6 12.4	6 13.2
3	6 9.6	6 10.3	6 10.9	6 11.6	6 12.3	6 13.1	6 14.0	6 14.8	6 15.8	6 16.8	6 18.0
4	6 11.9	6 12.8	6 13.6	6 14.5	6 15.5	6 16.5	6 17.6	6 18.7	6 20.0	6 21.3	6 22.8
5	6 14.3	6 15.3	6 16.4	6 17.5	6 18.6	6 19.9	6 21.2	6 22.6	6 24.2	6 25.8	6 27.6
6	6 16.6	6 17.8	6 19.1	6 20.4	6 21.8	6 23.3	6 24.9	6 26.6	6 28.4	6 30.4	6 32.5
7	6 19.0	6 20.4	6 21.8	6 23.4	6 25.0	6 26.7	6 28.6	6 30.5	6 32.6	6 34.9	6 37.4
8	6 21.3	6 22.9	6 24.6	6 26.4	6 28.2	6 30.2	6 32.3	6 34.5	6 36.9	6 39.5	6 42.3
9	6 23.7	6 25.5	6 27.4	6 29.4	6 31.4	6 33.7	6 36.0	6 38.5	6 41.2	6 44.1	6 47.3
10	6 26.1	6 28.1	6 30.2	6 32.4	6 34.7	6 37.2	6 39.8	6 42.5	6 45.6	6 48.8	6 52.3
+11	6 28.5	6 30.7	6 33.0	6 35.4	6 38.0	6 40.7	6 43.6	6 46.6	6 49.9	6 53.5	6 57.4
12	6 31.0	6 33.4	6 35.9	6 38.5	6 41.3	6 44.3	6 47.4	6 50.8	6 54.4	6 58.3	7 2.5
13	6 33.4	6 36.0	6 38.8	6 41.6	6 44.7	6 47.9	6 51.3	6 54.9	6 58.9	7 3.1	7 7.8
14	6 35.9	6 38.7	6 41.7	6 44.8	6 48.0	6 51.5	6 55.2	6 59.2	7 3.4	7 8.0	7 13.1
15	6 38.4	6 41.4	6 44.6	6 47.9	6 51.5	6 55.2	6 59.2	7 3.5	7 8.1	7 13.0	7 18.5
16	6 41.0	6 44.2	6 47.6	6 51.2	6 54.9	6 58.9	7 3.2	7 7.8	7 12.7	7 18.1	7 23.9
17	6 43.5	6 47.0	6 50.6	6 54.4	6 58.5	7 2.7	7 7.3	7 12.2	7 17.5	7 23.3	7 29.5
18	6 46.1	6 49.8	6 53.7	6 57.7	7 2.0	7 6.6	7 11.5	7 16.7	7 22.4	7 28.5	7 35.3
19	6 48.8	6 52.7	6 56.8	7 1.1	7 5.7	7 10.5	7 15.7	7 21.3	7 27.4	7 33.9	7 41.1
20	6 51.5	6 55.6	6 59.9	7 4.5	7 9.4	7 14.5	7 20.1	7 26.0	7 32.4	7 39.4	7 47.1
+21	6 54.2	6 58.6	7 3.1	7 8.0	7 13.1	7 18.6	7 24.5	7 30.8	7 37.6	7 45.1	7 53.3
22	6 56.9	7 1.6	7 6.4	7 11.5	7 17.0	7 22.8	7 29.0	7 35.7	7 42.9	7 50.9	7 59.6
23	6 59.8	7 4.6	7 9.7	7 15.1	7 20.9	7 27.0	7 33.6	7 40.7	7 48.4	7 56.8	8 6.1
24	7 2.6	7 7.7	7 13.1	7 18.8	7 24.9	7 31.3	7 38.3	7 45.8	7 54.0	8 2.9	8 12.9
25	7 5.6	7 10.9	7 16.6	7 22.6	7 29.0	7 35.8	7 43.1	7 51.1	7 59.8	8 9.3	8 19.9
26	7 8.5	7 14.2	7 20.1	7 26.4	7 33.2	7 40.4	7 48.1	7 56.5	8 5.7	8 15.8	8 27.1
27	7 11.6	7 17.5	7 23.8	7 30.4	7 37.5	7 45.0	7 53.2	8 2.1	8 11.8	8 22.6	8 34.7
28	7 14.7	7 20.9	7 27.5	7 34.4	7 41.9	7 49.9	7 58.5	8 7.9	8 18.2	8 29.7	8 42.6
29	7 17.9	7 24.4	7 31.3	7 38.6	7 46.4	7 54.8	8 3.9	8 13.9	8 24.8	8 37.1	8 51.0
+30	7 21.2	7 28.0	7 35.2	7 42.9	7 51.1	7 59.9	8 9.5	8 20.1	8 31.7	8 44.8	8 59.7

δ \ φ	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
°	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
−30	3 11.8	3 4.1	2 55.8	2 46.8	2 36.9	2 25.9	2 13.5	1 59.3	1 42.4	1 21.1	0 49.7
29	3 20.1	3 12.9	3 5.3	2 57.0	2 48.0	2 38.1	2 27.1	2 14.7	2 0.4	1 43.4	1 21.9
28	3 28.0	3 21.3	3 14.2	3 6.6	2 58.3	2 49.3	2 39.4	2 28.4	2 15.9	2 1.6	1 44.5
27	3 35.5	3 29.3	3 22.7	3 15.7	3 8.0	2 59.8	2 50.8	2 40.8	2 29.8	2 17.3	2 2.9
26	3 42.8	3 37.0	3 30.8	3 24.2	3 17.2	3 9.6	3 1.4	2 52.4	2 42.4	2 31.3	2 18.8
25	3 49.7	3 44.3	3 38.6	3 32.4	3 25.9	3 18.9	3 11.3	3 3.1	2 54.1	2 44.1	2 33.0
24	3 56.5	3 51.4	3 46.0	3 40.3	3 34.3	3 27.8	3 20.8	3 13.2	3 5.0	2 56.0	2 46.0
23	4 3.0	3 58.2	3 53.2	3 47.9	3 42.3	3 36.2	3 29.8	3 22.8	3 15.3	3 7.1	2 58.0
22	4 9.3	4 4.9	4 0.2	3 55.2	3 50.0	3 44.3	3 38.4	3 31.9	3 25.0	3 17.5	3 9.3
21	4 15.4	4 11.3	4 6.9	4 2.3	3 57.4	3 52.2	3 46.6	3 40.7	3 34.3	3 27.4	3 19.9
−20	4 21.4	4 17.5	4 13.5	4 9.1	4 4.6	3 59.8	3 54.6	3 49.1	3 43.2	3 36.9	3 30.0
19	4 27.3	4 23.7	4 19.9	4 15.8	4 11.6	4 7.1	4 2.3	3 57.2	3 51.8	3 45.9	3 39.6
18	4 33.0	4 29.6	4 26.1	4 22.3	4 18.4	4 14.2	4 9.8	4 5.1	4 0.1	3 54.7	3 48.9
17	4 38.6	4 35.4	4 32.1	4 28.7	4 25.0	4 21.1	4 17.0	4 12.7	4 8.1	4 3.1	3 57.8
16	4 44.1	4 41.2	4 38.1	4 34.9	4 31.5	4 27.9	4 24.1	4 20.1	4 15.9	4 11.3	4 6.4
15	4 49.5	4 46.8	4 43.9	4 41.0	4 37.8	4 34.5	4 31.0	4 27.4	4 23.4	4 19.3	4 14.8
14	4 54.8	4 52.3	4 49.7	4 46.9	4 44.1	4 41.0	4 37.8	4 34.4	4 30.8	4 27.0	4 22.9
13	5 0.0	4 57.7	4 55.3	4 52.8	4 50.2	4 47.4	4 44.5	4 41.4	4 38.1	4 34.6	4 30.9
12	5 5.1	5 3.0	5 0.9	4 58.6	4 56.2	4 53.7	4 51.0	4 48.2	4 45.2	4 42.0	4 38.7
11	5 10.2	5 8.3	5 6.4	5 4.3	5 2.1	4 59.8	4 57.4	4 54.9	4 52.2	4 49.3	4 46.3
−10	5 15.2	5 13.5	5 11.8	5 9.9	5 7.9	5 5.9	5 3.7	5 1.5	4 59.1	4 56.5	4 53.8
9	5 20.2	5 18.7	5 17.1	5 15.5	5 13.7	5 11.9	5 10.0	5 8.0	5 5.8	5 3.6	5 1.2
8	5 25.1	5 23.8	5 22.4	5 21.0	5 19.5	5 17.9	5 16.2	5 14.4	5 12.5	5 10.6	5 8.5
7	5 30.0	5 28.9	5 27.7	5 26.4	5 25.1	5 23.8	5 22.3	5 20.8	5 19.2	5 17.5	5 15.7
6	5 34.9	5 33.9	5 32.9	5 31.8	5 30.7	5 29.6	5 28.4	5 27.1	5 25.7	5 24.3	5 22.8
5	5 39.7	5 38.9	5 38.1	5 37.2	5 36.3	5 35.4	5 34.4	5 33.4	5 32.2	5 31.1	5 29.9
4	5 44.5	5 43.9	5 43.3	5 42.6	5 41.9	5 41.2	5 40.4	5 39.6	5 38.7	5 37.8	5 36.9
3	5 49.3	5 48.9	5 48.4	5 47.9	5 47.4	5 46.9	5 46.3	5 45.8	5 45.2	5 44.5	5 43.8
2	5 54.1	5 53.8	5 53.5	5 53.3	5 52.9	5 52.6	5 52.3	5 52.0	5 51.6	5 51.2	5 50.8
− 1	5 58.9	5 58.8	5 58.7	5 58.6	5 58.4	5 58.3	5 58.2	5 58.1	5 58.0	5 57.9	5 57.7
0	6 3.6	6 3.7	6 3.8	6 3.9	6 4.0	6 4.1	6 4.2	6 4.3	6 4.4	6 4.5	6 4.7
+ 1	6 8.4	6 8.6	6 8.9	6 9.2	6 9.5	6 9.8	6 10.1	6 10.4	6 10.8	6 11.2	6 11.6
2	6 13.2	6 13.6	6 14.0	6 14.5	6 15.0	6 15.5	6 16.0	6 16.6	6 17.2	6 17.8	6 18.5
3	6 18.0	6 18.6	6 19.2	6 19.8	6 20.5	6 21.2	6 22.0	6 22.8	6 23.6	6 24.6	6 25.5
4	6 22.8	6 23.5	6 24.4	6 25.2	6 26.1	6 27.0	6 28.0	6 29.0	6 30.1	6 31.3	6 32.5
5	6 27.6	6 28.6	6 29.6	6 30.6	6 31.7	6 32.8	6 34.0	6 35.3	6 36.6	6 38.1	6 39.6
6	6 32.5	6 33.6	6 34.8	6 36.0	6 37.3	6 38.7	6 40.1	6 41.6	6 43.2	6 44.9	6 46.7
7	6 37.4	6 38.7	6 40.0	6 41.5	6 43.0	6 44.6	6 46.2	6 48.0	6 49.8	6 51.8	6 53.9
8	6 42.3	6 43.8	6 45.3	6 47.0	6 48.7	6 50.5	6 52.4	6 54.4	6 56.5	6 58.8	7 1.2
9	6 47.3	6 48.9	6 50.7	6 52.6	6 54.5	6 56.5	6 58.7	7 0.9	7 3.3	7 5.9	7 8.6
10	6 52.3	6 54.2	6 56.1	6 58.2	7 0.3	7 2.6	7 5.0	7 7.5	7 10.2	7 13.1	7 16.2
+11	6 57.4	6 59.4	7 1.6	7 3.9	7 6.3	7 8.8	7 11.4	7 14.2	7 17.2	7 20.4	7 23.8
12	7 2.5	7 4.8	7 7.2	7 9.7	7 12.3	7 15.1	7 18.0	7 21.1	7 24.3	7 27.8	7 31.5
13	7 7.8	7 10.2	7 12.8	7 15.5	7 18.4	7 21.4	7 24.6	7 28.0	7 31.6	7 35.4	7 39.5
14	7 13.1	7 15.7	7 18.6	7 21.5	7 24.6	7 27.9	7 31.4	7 35.1	7 39.0	7 43.2	7 47.7
15	7 18.5	7 21.4	7 24.4	7 27.6	7 31.0	7 34.6	7 38.3	7 42.4	7 46.6	7 51.2	7 56.1
16	7 23.9	7 27.1	7 30.4	7 33.8	7 37.5	7 41.4	7 45.4	7 49.8	7 54.4	7 59.4	8 4.7
17	7 29.5	7 32.9	7 36.5	7 40.2	7 44.1	7 48.3	7 52.7	7 57.4	8 2.5	8 7.9	8 13.7
18	7 35.3	7 38.9	7 42.7	7 46.7	7 50.9	7 55.4	8 0.2	8 5.3	8 10.8	8 16.6	8 23.0
19	7 41.1	7 45.0	7 49.1	7 53.4	7 57.9	8 2.8	8 7.9	8 13.4	8 19.4	8 25.7	8 32.6
20	7 47.1	7 51.3	7 55.6	8 0.3	8 5.2	8 10.4	8 15.9	8 21.9	8 28.3	8 35.2	8 42.8
+21	7 53.3	7 57.7	8 2.4	8 7.3	8 12.6	8 18.2	8 24.2	8 30.7	8 37.6	8 45.2	8 53.5
22	7 59.6	8 4.3	8 9.4	8 14.7	8 20.3	8 26.4	8 32.8	8 39.8	8 47.4	8 55.7	9 4.8
23	8 6.1	8 11.2	8 16.6	8 22.3	8 28.3	8 34.9	8 41.9	8 49.5	8 57.7	9 6.8	9 16.9
24	8 12.9	8 18.3	8 24.0	8 30.2	8 36.7	8 43.8	8 51.4	8 59.6	9 8.7	9 18.8	9 30.0
25	8 19.9	8 25.7	8 31.8	8 38.4	8 45.5	8 53.1	9 1.4	9 10.5	9 20.5	9 31.7	9 44.4
26	8 27.1	8 33.4	8 40.0	8 47.0	8 54.7	9 3.0	9 12.1	9 22.1	9 33.2	9 45.9	10 0.6
27	8 34.7	8 41.4	8 48.5	8 56.1	9 4.4	9 13.5	9 23.5	9 34.6	9 47.3	10 1.9	10 19.5
28	8 42.6	8 49.8	8 57.5	9 5.8	9 14.8	9 24.8	9 35.9	9 48.5	10 3.1	10 20.5	10 42.9
29	8 51.0	8 58.7	9 7.0	9 16.1	9 26.0	9 37.1	9 49.6	10 4.1	10 21.5	10 43.7	11 18.1
+30	8 59.7	9 8.1	9 17.2	9 27.1	9 38.2	9 50.7	10 5.1	10 22.3	10 44.4	11 18.5	—

Reduktionstafel

für den Auf- und Untergang der Sonne

Das Vorzeichen der Tafel gilt für den Aufgang, das entgegengesetzte Vorzeichen für den Untergang

Tag	Geographische Breite φ										
	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
1931	m	m	m	m	m	m	m	m	m	m	m
Jan. 1	—62.8	—58.1	—53.2	—48.1	—42.7	—36.8	—30.5	—23.8	—16.5	—8.7	0.0
11	—58.8	—54.3	—49.7	—44.8	—39.8	—34.3	—28.5	—22.2	—15.4	—8.0	0.0
21	—52.5	—48.5	—44.4	—40.0	—35.5	—30.5	—25.3	—19.8	—13.8	—7.1	0.0
31	—44.8	—41.3	—37.7	—34.0	—30.1	—26.0	—21.4	—16.7	—11.7	—6.0	0.0
Febr. 10	—36.0	—33.3	—30.3	—27.3	—24.2	—20.8	—17.1	—13.3	— 9.3	—4.8	0.0
20	—26.7	—24.7	—22.5	—20.2	—17.9	—15.4	—12.6	— 9.8	— 6.8	—3.5	0.0
März 2	—17.1	—15.8	—14.4	—12.9	—11.4	— 9.8	— 8.0	— 6.2	— 4.3	—2.2	0.0
12	— 7.4	— 6.9	— 6.3	— 5.6	— 4.9	— 4.2	— 3.4	— 2.7	— 1.9	—0.9	0.0
22	+ 2.3	+ 2.1	+ 1.9	+ 1.9	+ 1.6	+ 1.4	+ 1.2	+ 0.9	+ 0.6	+0.3	0.0
April 1	+11.9	+11.0	+10.0	+ 9.2	+ 8.1	+ 6.9	+ 5.8	+ 4.5	+ 3.1	+1.6	0.0
11	+21.6	+19.9	+18.2	+16.5	+14.5	+12.4	+10.3	+ 8.1	+ 5.5	+2.9	0.0
21	+31.1	+28.6	+26.2	+23.7	+20.8	+17.9	+14.9	+11.6	+ 8.0	+4.2	0.0
Mai 1	+40.2	+37.1	+34.0	+30.7	+27.1	+23.3	+19.5	+15.1	+10.5	+5.5	0.0
11	+48.8	+45.2	+41.3	+37.3	+33.1	+28.4	+23.7	+18.4	+12.8	+6.7	0.0
21	+56.5	+52.4	+47.9	+43.2	+38.4	+33.1	+27.5	+21.5	+14.9	+7.8	0.0
31	+62.7	+58.2	+53.4	+48.2	+42.8	+36.9	+30.7	+24.0	+16.8	+8.8	0.0
Juni 10	+67.0	+62.1	+57.0	+51.5	+45.7	+39.5	+32.9	+25.9	+18.0	+9.5	0.0
20	+68.8	+63.8	+58.6	+52.9	+47.0	+40.7	+33.9	+26.6	+18.5	+9.8	0.0
30	+68.0	+63.0	+57.9	+52.3	+46.4	+40.1	+33.4	+26.2	+18.2	+9.6	0.0
Juli 10	+64.6	+59.8	+54.9	+49.6	+44.1	+38.1	+31.7	+24.9	+17.2	+9.1	0.0
20	+59.1	+54.7	+50.2	+45.3	+40.2	+34.7	+28.8	+22.6	+15.7	+8.2	0.0
30	+52.0	+48.0	+44.1	+39.7	+35.3	+30.4	+25.2	+19.7	+13.7	+7.1	0.0
Aug. 9	+43.8	+40.5	+37.0	+33.3	+29.6	+25.5	+21.1	+16.5	+11.5	+5.9	0.0
19	+34.9	+32.3	+29.4	+26.5	+23.5	+20.3	+16.8	+13.0	+ 9.1	+4.7	0.0
29	+25.6	+23.7	+21.7	+19.5	+17.2	+14.9	+12.3	+ 9.5	+ 6.7	+3.4	0.0
Sept. 8	+16.2	+14.9	+13.7	+12.3	+10.9	+ 9.4	+ 7.7	+ 6.0	+ 4.2	+2.1	0.0
18	+ 6.7	+ 6.1	+ 5.6	+ 5.0	+ 4.5	+ 3.9	+ 3.1	+ 2.5	+ 1.8	+0.9	0.0
28	— 3.0	— 2.7	— 2.4	— 2.2	— 1.9	— 1.6	— 1.4	— 1.0	— 0.7	—0.4	0.0
Okt. 8	—12.6	—11.5	—10.4	— 9.5	— 8.3	— 7.1	— 5.9	— 4.6	— 3.1	—1.6	0.0
18	—22.1	—20.3	—18.5	—16.7	—14.7	—12.6	—10.4	— 8.1	— 5.5	—2.9	0.0
28	—31.4	—28.9	—26.4	—23.8	—21.0	—18.0	—14.9	—11.6	— 8.0	—4.2	0.0
Nov. 7	—40.3	—37.2	—34.1	—30.7	—27.1	—23.2	—19.3	—15.0	—10.3	—5.5	0.0
17	—48.7	—45.0	—41.1	—37.1	—32.7	—28.2	—23.4	—18.2	—12.6	—6.7	0.0
27	—55.7	—51.5	—47.1	—42.5	—37.7	—32.4	—27.0	—21.0	—14.6	—7.7	0.0
Dez. 7	—61.0	—56.4	—51.6	—46.6	—41.3	—35.6	—29.6	—23.1	—16.1	—8.5	0.0
17	—63.9	—59.1	—54.1	—48.9	—43.3	—37.4	—31.1	—24.3	—16.9	—8.9	0.0
27	—63.9	—59.1	—54.1	—48.9	—43.3	—37.4	—31.1	—24.3	—16.9	—8.9	0.0
37	—61.2	—56.6	—51.8	—46.8	—41.5	—35.8	—29.8	—23.3	—16.1	—8.4	0.0

Reduktionstafel

für den Auf- und Untergang der Sonne

Das Vorzeichen der Tafel gilt für den Aufgang, das entgegengesetzte Vorzeichen für den Untergang

Tag	Geographische Breite φ										
	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
1931	m	m	m	m	m	m	m	m	m	m	m
Jan. 1	0.0	+4.7	+ 9.6	+14.8	+20.5	+26.4	+32.9	+39.7	+47.1	+55.2	+64.0
11	0.0	+4.4	+ 8.9	+13.8	+18.9	+24.5	+30.3	+36.5	+43.3	+50.6	+58.5
21	0.0	+3.8	+ 7.9	+12.2	+16.7	+21.4	+26.5	+32.0	+37.7	+43.9	+50.7
31	0.0	+3.2	+ 6.6	+10.2	+13.9	+17.9	+22.1	+26.6	+31.3	+36.4	+41.9
Febr. 10	0.0	+2.5	+ 5.2	+ 8.1	+11.0	+14.2	+17.5	+20.9	+24.6	+28.6	+32.8
20	0.0	+1.8	+ 3.8	+ 5.9	+ 8.0	+10.3	+12.8	+15.2	+17.9	+20.8	+23.7
März 2	0.0	+1.2	+ 2.4	+ 3.8	+ 5.1	+ 6.5	+ 8.1	+ 9.6	+11.3	+13.0	+14.8
12	0.0	+0.5	+ 1.0	+ 1.6	+ 2.2	+ 2.8	+ 3.5	+ 4.1	+ 4.7	+ 5.5	+ 6.3
22	0.0	—0.2	— 0.4	— 0.5	— 0.7	— 1.0	— 1.2	— 1.4	— 1.7	— 2.0	— 2.3
April 1	0.0	—0.9	— 1.8	— 2.6	— 3.7	— 4.7	— 5.9	— 7.0	— 8.2	— 9.6	—10.8
11	0.0	—1.5	— 3.2	— 4.8	— 6.7	— 8.5	—10.4	—12.6	—14.8	—17.2	—19.6
21	0.0	—2.2	— 4.6	— 7.0	— 9.7	—12.4	—15.2	—18.3	—21.6	—24.9	—28.7
Mai 1	0.0	—3.0	— 6.1	— 9.2	—12.7	—16.3	—20.0	—24.1	—28.4	—32.9	—37.9
11	0.0	—3.6	— 7.4	—11.3	—15.6	—20.1	—24.7	—29.9	—35.4	—41.1	—47.4
21	0.0	—4.2	— 8.7	—13.3	—18.3	—23.7	—29.4	—35.5	—42.1	—49.2	—56.9
31	0.0	—4.7	— 9.8	—15.2	—20.7	—26.9	—33.4	—40.5	—48.0	—56.3	—65.5
Juni 10	0.0	—5.1	—10.6	—16.4	—22.6	—29.1	—36.2	—44.0	—52.4	—61.7	—72.0
20	0.0	—5.3	—10.9	—16.9	—23.3	—30.2	—37.5	—45.6	—54.4	—64.0	—75.1
30	0.0	—5.2	—10.7	—16.6	—22.9	—29.6	—36.9	—44.9	—53.5	—62.9	—73.7
Juli 10	0.0	—4.9	—10.1	—15.6	—21.6	—27.9	—34.6	—41.9	—49.9	—58.7	—68.2
20	0.0	—4.4	— 9.1	—14.1	—19.4	—25.0	—31.0	—37.5	—44.5	—52.0	—60.4
30	0.0	—3.8	— 7.9	—12.2	—16.7	—21.5	—26.6	—32.2	—38.0	—44.4	—51.2
Aug. 9	0.0	—3.2	— 6.5	—10.1	—13.9	—17.8	—22.1	—26.5	—31.2	—36.3	—41.7
19	0.0	—2.5	— 5.1	— 7.9	—10.9	—13.9	—17.3	—20.7	—24.4	—28.3	—32.5
29	0.0	—1.8	— 3.7	— 5.8	— 7.9	—10.1	—12.5	—15.0	—17.6	—20.4	—23.4
Sept. 8	0.0	—1.2	— 2.3	— 3.7	— 5.0	— 6.3	— 7.8	— 9.4	—11.0	—12.8	—14.7
18	0.0	—0.5	— 0.9	— 1.6	— 2.1	— 2.6	— 3.2	— 3.9	— 4.6	— 5.3	— 6.1
28	0.0	+0.2	+ 0.5	+ 0.5	+ 0.8	+ 1.1	+ 1.3	+ 1.5	+ 1.8	+ 2.1	+ 2.3
Okt. 8	0.0	+0.9	+ 1.8	+ 2.7	+ 3.7	+ 4.8	+ 5.9	+ 6.9	+ 8.2	+ 9.5	+10.7
18	0.0	+1.6	+ 3.2	+ 4.8	+ 6.6	+ 8.5	+10.4	+12.4	+14.7	+17.0	+19.4
28	0.0	+2.2	+ 4.6	+ 6.9	+ 9.5	+12.3	+15.0	+18.0	+21.3	+24.6	+28.2
Nov. 7	0.0	+2.9	+ 6.0	+ 9.0	+12.5	+16.0	+19.8	+23.6	+27.9	+32.3	+37.3
17	0.0	+3.6	+ 7.3	+11.1	+15.3	+19.6	+24.3	+29.2	+34.5	+40.1	+46.2
27	0.0	+4.1	+ 8.4	+13.0	+17.8	+22.9	+28.4	+34.3	+40.5	+47.3	+54.7
Dez. 7	0.0	+4.6	+ 9.3	+14.5	+19.8	+25.5	+31.7	+38.2	+45.4	+53.1	+61.4
17	0.0	+4.8	+ 9.8	+15.2	+20.9	+27.0	+33.5	+40.5	+48.2	+56.3	+65.5
27	0.0	+4.8	+ 9.8	+15.2	+20.9	+27.0	+33.5	+40.5	+48.2	+56.5	+65.7
37	0.0	+4.6	+ 9.3	+14.4	+19.8	+25.7	+31.9	+38.4	+45.5	+53.3	+61.8

Reduktionstafel

für Auf- und Untergang des Mondes

Das Vorzeichen der Tafel gilt für den Aufgang, das entgegengesetzte Vorzeichen für den Untergang

t*)	Geographische Breite φ										
	+30°	+32°	+34°	+36°	+38°	+40°	+42°	+44°	+46°	+48°	+50°
h m	m	m	m	m	m	m	m	m	m	m	m
3 20	—94.6	—87.9	—80.9	—73.4	—65.5	—56.9	—47.6	—37.5	—26.4	—14.0	0.0
3 30	—88.5	—82.2	—75.6	—68.5	—61.0	—52.9	—44.2	—34.8	—24.4	—12.9	0.0
3 40	—82.5	—76.5	—70.3	—63.7	—56.6	—49.1	—41.0	—32.2	—22.5	—11.9	0.0
3 50	—76.6	—71.0	—65.2	—59.0	—52.4	—45.3	—37.8	—29.6	—20.7	—10.9	0.0
4 0	—70.8	—65.6	—60.1	—54.4	—48.2	—41.7	—34.7	—27.2	—18.9	— 9.9	0.0
4 10	—65.1	—60.3	—55.2	—49.9	—44.2	—38.2	—31.7	—24.8	—17.3	— 9.0	0.0
4 20	—59.5	—55.0	—50.3	—45.5	—40.3	—34.8	—28.9	—22.5	—15.7	— 8.2	0.0
4 30	—54.0	—49.9	—45.6	—41.2	—36.5	—31.4	—26.1	—20.4	—14.1	— 7.4	0.0
4 40	—48.4	—44.8	—40.9	—36.9	—32.7	—28.2	—23.3	—18.2	—12.6	— 6.6	0.0
4 50	—43.0	—39.8	—36.4	—32.7	—29.0	—24.9	—20.7	—16.1	—11.2	— 5.8	0.0
5 0	—37.7	—34.8	—31.8	—28.6	—25.3	—21.8	—18.1	—14.1	— 9.8	— 5.0	0.0
5 10	—32.4	—29.9	—27.3	—24.6	—21.7	—18.7	—15.5	—12.1	— 8.4	— 4.3	0.0
5 20	—27.1	—25.0	—22.8	—20.6	—18.2	—15.6	—12.9	—10.1	— 7.0	— 3.6	0.0
5 30	—21.9	—20.2	—18.4	—16.6	—14.7	—12.6	—10.4	— 8.1	— 5.6	— 2.9	0.0
5 40	—16.7	—15.4	—14.0	—12.6	—11.2	— 9.6	— 7.9	— 6.2	— 4.3	— 2.2	0.0
5 50	—11.5	—10.6	— 9.7	— 8.7	— 7.7	— 6.6	— 5.5	— 4.2	— 2.9	— 1.5	0.0
6 0	— 6.4	— 5.8	— 5.4	— 4.8	— 4.2	— 3.6	— 3.0	— 2.3	— 1.6	— 0.9	0.0
6 10	— 1.2	— 1.1	— 1.0	— 0.9	— 0.8	— 0.7	— 0.6	— 0.4	— 0.3	— 0.2	0.0
6 20	+ 4.0	+ 3.7	+ 3.4	+ 3.0	+ 2.6	+ 2.3	+ 1.9	+ 1.5	+ 1.0	+ 0.5	0.0
6 30	+ 9.1	+ 8.4	+ 7.7	+ 6.9	+ 6.1	+ 5.3	+ 4.4	+ 3.4	+ 2.4	+ 1.2	0.0
6 40	+14.3	+13.2	+12.0	+10.8	+ 9.6	+ 8.2	+ 6.8	+ 5.3	+ 3.7	+ 1.9	0.0
6 50	+19.5	+18.0	+16.4	+14.8	+13.1	+11.2	+ 9.3	+ 7.2	+ 5.0	+ 2.6	0.0
7 0	+24.7	+22.8	+20.9	+18.8	+16.6	+14.2	+11.8	+ 9.1	+ 6.3	+ 3.3	0.0
7 10	+30.0	+27.7	+25.3	+22.8	+20.1	+17.3	+14.3	+11.1	+ 7.7	+ 4.0	0.0
7 20	+35.3	+32.6	+29.7	+26.8	+23.7	+20.3	+16.8	+13.1	+ 9.1	+ 4.7	0.0
7 30	+40.6	+37.5	+34.3	+30.9	+27.3	+23.4	+19.4	+15.1	+10.5	+ 5.5	0.0
7 40	+45.9	+42.5	+38.9	+35.0	+31.0	+26.6	+22.1	+17.2	+12.0	+ 6.2	0.0
7 50	+51.4	+47.6	+43.5	+39.2	+34.7	+29.9	+24.8	+19.3	+13.5	+ 7.0	0.0
8 0	+56.9	+52.7	+48.2	+43.5	+38.5	+33.2	+27.6	+21.5	+15.0	+ 7.8	0.0
8 10	+62.5	+57.9	+53.0	+47.9	+42.4	+36.6	+30.4	+23.8	+16.6	+ 8.6	0.0
8 20	+68.2	+63.2	+57.9	+52.3	+46.4	+40.1	+33.3	+26.1	+18.2	+ 9.5	0.0
8 30	+74.0	+68.5	+62.9	+56.9	+50.5	+43.7	+36.4	+28.5	+19.8	+10.5	0.0
8 40	+79.8	+74.0	+67.9	+61.5	+54.7	+47.3	+39.5	+30.9	+21.6	+11.4	0.0
8 50	+85.8	+79.6	+73.1	+66.3	+59.0	+51.1	+42.7	+33.5	+23.5	+12.5	0.0
9 0	+91.9	+85.3	+78.4	+71.2	+63.4	+55.0	+46.0	+36.3	+25.5	+13.5	0.0

*) t ist beim Aufgange der Zeitunterschied zwischen Aufgang und Kulmination, beim Untergange der Zeitunterschied zwischen Kulmination und Untergang

Reduktionstafel

für Auf- und Untergang des Mondes

Das Vorzeichen der Tafel gilt für den Aufgang, das entgegengesetzte Vorzeichen für den Untergang

t*)	Geographische Breite φ										
	+50°	+51°	+52°	+53°	+54°	+55°	+56°	+57°	+58°	+59°	+60°
h m	m	m	m	m	m	m	m	m	m	m	m
3 20	0.0	+7.7	+16.1	+25.2	+35.1	+46.1	+58.4	+72.5	+89.1	+109.7	+138.1
3 30	0.0	+7.1	+14.7	+22.9	+31.8	+41.6	+52.4	+64.5	+78.3	+ 94.5	+114.3
3 40	0.0	+6.5	+13.4	+20.9	+28.9	+37.6	+47.2	+57.7	+69.4	+ 82.7	+ 98.2
3 50	0.0	+5.9	+12.2	+19.0	+26.2	+34.0	+42.5	+51.7	+61.9	+ 73.3	+ 86.1
4 0	0.0	+5.4	+11.1	+17.2	+23.7	+30.8	+38.2	+46.3	+55.2	+ 65.0	+ 76.0
4 10	0.0	+4.9	+10.1	+15.6	+21.4	+27.7	+34.4	+41.6	+49.4	+ 57.9	+ 67.3
4 20	0.0	+4.5	+ 9.1	+14.0	+19.2	+24.8	+30.8	+37.2	+44.0	+ 51.5	+ 59.6
4 30	0.0	+4.0	+ 8.1	+12.5	+17.2	+22.2	+27.5	+33.1	+39.1	+ 45.7	+ 52.7
4 40	0.0	+3.5	+ 7.3	+11.2	+15.3	+19.7	+24.3	+29.3	+34.5	+ 40.2	+ 46.3
4 50	0.0	+3.1	+ 6.4	+ 9.8	+13.4	+17.3	+21.4	+25.6	+30.2	+ 35.1	+ 40.4
5 0	0.0	+2.7	+ 5.5	+ 8.5	+11.6	+15.0	+18.5	+22.2	+26.1	+ 30.3	+ 34.8
5 10	0.0	+2.3	+ 4.7	+ 7.2	+10.0	+12.8	+15.7	+18.9	+22.2	+ 25.7	+ 29.5
5 20	0.0	+2.0	+ 3.9	+ 6.0	+ 8.3	+10.7	+13.1	+15.7	+18.4	+ 21.3	+ 24.4
5 30	0.0	+1.6	+ 3.2	+ 4.8	+ 6.7	+ 8.5	+10.5	+12.6	+14.8	+ 17.1	+ 19.6
5 40	0.0	+1.2	+ 2.4	+ 3.7	+ 5.0	+ 6.5	+ 7.9	+ 9.5	+11.2	+ 13.0	+ 14.8
5 50	0.0	+0.8	+ 1.7	+ 2.6	+ 3.4	+ 4.4	+ 5.5	+ 6.5	+ 7.7	+ 8.9	+ 10.2
6 0	0.0	+0.5	+ 0.9	+ 1.4	+ 1.9	+ 2.4	+ 3.0	+ 3.6	+ 4.2	+ 4.9	+ 5.6
6 10	0.0	+0.1	+ 0.2	+ 0.2	+ 0.4	+ 0.5	+ 0.6	+ 0.7	+ 0.8	+ 0.9	+ 1.1
6 20	0.0	−0.3	− 0.6	− 0.9	− 1.2	− 1.5	− 1.9	− 2.3	− 2.6	− 3.0	− 3.5
6 30	0.0	−0.6	− 1.3	− 2.0	− 2.7	− 3.5	− 4.3	− 5.2	− 6.0	− 7.0	− 8.0
6 40	0.0	−1.0	− 2.1	− 3.1	− 4.3	− 5.5	− 6.8	− 8.1	− 9.5	− 11.0	− 12.6
6 50	0.0	−1.3	− 2.9	− 4.3	− 5.9	− 7.5	− 9.4	−11.2	−13.1	− 15.1	− 17.3
7 0	0.0	−1.7	− 3.6	− 5.5	− 7.5	− 9.6	−11.9	−14.2	−16.7	− 19.3	− 22.2
7 10	0.0	−2.1	− 4.4	− 6.7	− 9.2	−11.7	−14.5	−17.4	−20.4	− 23.7	− 27.1
7 20	0.0	−2.5	− 5.1	− 7.9	−10.8	−13.8	−17.1	−20.6	−24.2	− 28.1	− 32.3
7 30	0.0	−2.9	− 6.0	− 9.2	−12.6	−16.1	−19.9	−24.0	−28.2	− 32.8	− 37.7
7 40	0.0	−3.3	− 6.9	−10.6	−14.4	−18.5	−22.9	−27.5	−32.4	− 37.8	− 43.4
7 50	0.0	−3.8	− 7.7	−12.0	−16.3	−21.0	−25.9	−31.3	−36.9	− 43.0	− 49.6
8 0	0.0	−4.2	− 8.7	−13.4	−18.3	−23.7	−29.2	−35.3	−41.7	− 48.7	− 56.3
8 10	0.0	−4.7	− 9.6	−14.9	−20.4	−26.4	−32.6	−39.5	−46.8	− 54.8	− 63.5
8 20	0.0	−5.2	−10.6	−16.4	−22.6	−29.2	−36.3	−44.0	−52.3	− 61.5	− 71.6
8 30	0.0	−5.7	−11.7	−18.1	−25.0	−32.4	−40.4	−49.1	−58.6	− 69.1	− 81.0
8 40	0.0	−6.3	−12.9	−19.9	−27.6	−35.8	−44.9	−54.9	−65.7	− 77.9	− 92.1
8 50	0.0	−6.8	−14.1	−21.9	−30.5	−39.7	−49.8	−61.2	−73.8	− 88.5	−106.1
9 0	0.0	−7.4	−15.4	−24.1	−33.7	−44.1	−55.3	−68.4	−83.6	−101.4	−125.9

*) *t* ist beim Aufgange der Zeitunterschied zwischen Aufgang und Kulmination, beim Untergange der Zeitunterschied zwischen Kulmination und Untergang

Julianische Periode

I. Anzahl der am 0. Januar, 12h Welt-Zeit, seit Anfang der Periode verflossenen Tage

Jahr n. Chr.	0	100	200	300	400	500	600	700	800	900
	17	17	17	18	18	19	19	19	20	20
0	21057	57582	94107	30632	67157	03682	40207	76732	13257	49782
4	22518	59043	95568	32093	68618	05143	41668	78193	14718	51243
8	23979	60504	97029	33554	70079	06604	43129	79654	16179	52704
12	25440	61965	98490	35015	71540	08065	44590	81115	17640	54165
16	26901	63426	99951	36476	73001	09526	46051	82576	19101	55626
20	28362	64887	01412	37937	74462	10987	47512	84037	20562	57087
24	29823	66348	02873	39398	75923	12448	48973	85498	22023	58548
28	31284	67809	04334	40859	77384	13909	50434	86959	23484	60009
32	32745	69270	05795	42320	78845	15370	51895	88420	24945	61470
36	34206	70731	07256	43781	80306	16831	53356	89881	26406	62931
40	35667	72192	08717	45242	81767	18292	54817	91342	27867	64392
44	37128	73653	10178	46703	83228	19753	56278	92803	29328	65853
48	38589	75114	11639	48164	84689	21214	57739	94264	30789	67314
52	40050	76575	13100	49625	86150	22675	59200	95725	32250	68775
56	41511	78036	14561	51086	87611	24136	60661	97186	33711	70236
60	42972	79497	16022	52547	89072	25597	62122	98647	35172	71697
64	44433	80958	17483	54008	90533	27058	63583	00108	36633	73158
68	45894	82419	18944	55469	91994	28519	65044	01569	38094	74619
72	47355	83880	20405	56930	93455	29980	66505	03030	39555	76080
76	48816	85341	21866	58391	94916	31441	67966	04491	41016	77541
80	50277	86802	23327	59852	96377	32902	69427	05952	42477	79002
84	51738	88263	24788	61313	97838	34363	70888	07413	43938	80463
88	53199	89724	26249	62774	99299	35824	72349	08874	45399	81924
92	54660	91185	27710	64235	00760	37285	73810	10335	46860	83385
96	56121	92646	29171	65696	02221	38746	75271	11796	48321	84846
100	57582	94107	30632	67157	03682	40207	76732	13257	49782	86307
	17	17	18	18	19	19	19	20	20	20

Ia. Anzahl der am 0. jedes Monats, 12h Welt-Zeit, seit Beginn der Schaltperiode verflossenen Tage

Jahr	Jan. 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
0	0	31	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

Julianische Periode

I. Anzahl der am 0. Januar, 12^h Welt-Zeit, seit Anfang der Periode verflossenen Tage

Jahr n. Chr.	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
	20	21	21	21	22	22	23	23	23	24
0	86307	22832	59357	95882	32407	68932	05447	41971[1]	78495[1]	15019[1]
4	87768	24293	60818	97343	33868	70393	06908	43432	79956	16480
8	89229	25754	62279	98804	35329	71854	08369	44893	81417	17941
12	90690	27215	63740	00265	36790	73315	09830	46354	82878	19402
16	92151	28676	65201	01726	38251	74776	11291	47815	84339	20863
20	93612	30137	66662	03187	39712	76237	12752	49276	85800	22324
24	95073	31598	68123	04648	41173	77698	14213	50737	87261	23785
28	96534	33059	69584	06109	42634	79159	15674	52198	88722	25246
32	97995	34520	71045	07570	44095	80620	17135	53659	90183	26707
36	99456	35981	72506	09031	45556	82081	18596	55120	91644	28168
40	00917	37442	73967	10492	47017	83542	20057	56581	93105	29629
44	02378	38903	75428	11953	48478	85003	21518	58042	94566	31090
48	03839	40364	76889	13414	49939	86464	22979	59503	96027	32551
52	05300	41825	78350	14875	51400	87925	24440	60964	97488	34012
56	06761	43286	79811	16336	52861	89386	25901	62425	98949	35473
60	08222	44747	81272	17797	54322	90847	27362	63886	00410	36934
64	09683	46208	82733	19258	55783	92308	28823	65347	01871	38395
68	11144	47669	84194	20719	57244	93769	30284	66808	03332	39856
72	12605	49130	85655	22180	58705	95230	31745	68269	04793	41317
76	14066	50591	87116	23641	60166	96691	33206	69730	06254	42778
80	15527	52052	88577	25102	61627	98152	34667	71191	07715	44239
84	16988	53513	90038	26563	63088	99603	36128	72652	09176	45700
88	18449	54974	91499	28024	64549	01064	37589	74113	10637	47161
92	19910	56435	92960	29485	66010	02525	39050	75574	12098	48622
96	21371	57896	94421	30946	67471	03986	40511	77035	13559	50083
100	22832	59357	95882	32407	68932	05447	41971[1]	78495[1]	15019[1]	51544
	21	21	21	22	22	23	23	23	24	24

[1]) Die Zahlen geben die am —1. Jan. seit Anfang der Periode verflossenen Tage

Ia. Anzahl der am 0. jedes Monats, 12^h Welt-Zeit, seit Beginn der Schaltperiode verflossenen Tage

Jahr	Jan. 0	Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
0	0[2])	31[2])	60	91	121	152	182	213	244	274	305	335
1	366	397	425	456	486	517	547	578	609	639	670	700
2	731	762	790	821	851	882	912	943	974	1004	1035	1065
3	1096	1127	1155	1186	1216	1247	1277	1308	1339	1369	1400	1430

Von 1582 Okt. 15 bis 1583 Dez. 31 sind die Zahlen der Tafel Ia um 10 zu verkleinern

[2]) In den Jahren 1700, 1800, 1900 um 1 zu vergrößern

Julianische Periode

II. Anzahl der seit Beginn der Periode am 0. jedes Monats, 12^h Welt-Zeit, verflossenen Tage

Jahr n. Chr.	Januar 0		Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
1860	2400	410	441	470	501	531	562	592	623	654	684	715	745
1861		776	807	835	866	896	927	957	988	*019	*049	*080	*110
1862	2401	141	172	200	231	261	292	322	353	384	414	445	475
1863		506	537	565	596	626	657	687	718	749	779	810	840
1864		871	902	931	962	992	*023	*053	*084	*115	*145	*176	*206
1865	2402	237	268	296	327	357	388	418	449	480	510	541	571
1866		602	633	661	692	722	753	783	814	845	875	906	936
1867		967	998	*026	*057	*087	*118	*148	*179	*210	*240	*271	*301
1868	2403	332	363	392	423	453	484	514	545	576	606	637	667
1869		698	729	757	788	818	849	879	910	941	971	*002	*032
1870	2404	063	094	122	153	183	214	244	275	306	336	367	397
1871		428	459	487	518	548	579	609	640	671	701	732	762
1872		793	824	853	884	914	945	975	*006	*037	*067	*098	*128
1873	2405	159	190	218	249	279	310	340	371	402	432	463	493
1874		524	555	583	614	644	675	705	736	767	797	828	858
1875		889	920	948	979	*009	*040	*070	*101	*132	*162	*193	*223
1876	2406	254	285	314	345	375	406	436	467	498	528	559	589
1877		620	651	679	710	740	771	801	832	863	893	924	954
1878		985	*016	*044	*075	*105	*136	*166	*197	*228	*258	*289	*319
1879	2407	350	381	409	440	470	501	531	562	593	623	654	684
1880		715	746	775	806	836	867	897	928	959	989	*020	*050
1881	2408	081	112	140	171	201	232	262	293	324	354	385	415
1882		446	477	505	536	566	597	627	658	689	719	750	780
1883		811	842	870	901	931	962	992	*023	*054	*084	*115	*145
1884	2409	176	207	236	267	297	328	358	389	420	450	481	511
1885		542	573	601	632	662	693	723	754	785	815	846	876
1886		907	938	966	997	*027	*058	*088	*119	*150	*180	*211	*241
1887	2410	272	303	331	362	392	423	453	484	515	545	576	606
1888		637	668	697	728	758	789	819	850	881	911	942	972
1889	2411	003	034	062	093	123	154	184	215	246	276	307	337
1890		368	399	427	458	488	519	549	580	611	641	672	702
1891		733	764	792	823	853	884	914	945	976	*006	*037	*067
1892	2412	098	129	158	189	219	250	280	311	342	372	403	433
1893		464	495	523	554	584	615	645	676	707	737	768	798
1894		829	860	888	919	949	980	*010	*041	*072	*102	*133	*163
1895	2413	194	225	253	284	314	345	375	406	437	467	498	528
1896		559	590	619	650	680	711	741	772	803	833	864	894
1897		925	956	984	*015	*045	*076	*106	*137	*168	*198	*229	*259
1898	2414	290	321	349	380	410	441	471	502	533	563	594	624
1899		655	686	714	745	775	806	836	867	898	928	959	989

Julianische Periode

II. Anzahl der seit Beginn der Periode am 0. jedes Monats, 12^h Welt-Zeit, verflossenen Tage

Jahr n. Chr.	Januar 0		Febr. 0	März 0	April 0	Mai 0	Juni 0	Juli 0	Aug. 0	Sept. 0	Okt. 0	Nov. 0	Dez. 0
1900	2415	020	051	079	110	140	171	201	232	263	293	324	354
1901		385	416	444	475	505	536	566	597	628	658	689	719
1902		750	781	809	840	870	901	931	962	993	*023	*054	*084
1903	2416	115	146	174	205	235	266	296	327	358	388	419	449
1904		480	511	540	571	601	632	662	693	724	754	785	815
1905		846	877	905	936	966	997	*027	*058	*089	*119	*150	*180
1906	2417	211	242	270	301	331	362	392	423	454	484	515	545
1907		576	607	635	666	696	727	757	788	819	849	880	910
1908		941	972	*001	*032	*062	*093	*123	*154	*185	*215	*246	*276
1909	2418	307	338	366	397	427	458	488	519	550	580	611	641
1910		672	703	731	762	792	823	853	884	915	945	976	*006
1911	2419	037	068	096	127	157	188	218	249	280	310	341	371
1912		402	433	462	493	523	554	584	615	646	676	707	737
1913		768	799	827	858	888	919	949	980	*011	*041	*072	*102
1914	2420	133	164	192	223	253	284	314	345	376	406	437	467
1915		498	529	557	588	618	649	679	710	741	771	802	832
1916		863	894	923	954	984	*015	*045	*076	*107	*137	*168	*198
1917	2421	229	260	288	319	349	380	410	441	472	502	533	563
1918		594	625	653	684	714	745	775	806	837	867	898	928
1919		959	990	*018	*049	*079	*110	*140	*171	*202	*232	*263	*293
1920	2422	324	355	384	415	445	476	506	537	568	598	629	659
1921		690	721	749	780	810	841	871	902	933	963	994	*024
1922	2423	055	086	114	145	175	206	236	267	298	328	359	389
1923		420	451	479	510	540	571	601	632	663	693	724	754
1924		785	816	845	876	906	937	967	998	*029	*059	*090	*120
1925	2424	151	182	210	241	271	302	332	363	394	424	455	485
1926		516	547	575	606	636	667	697	728	759	789	820	850
1927		881	912	940	971	*001	*032	*062	*093	*124	*154	*185	*215
1928	2425	246	277	306	337	367	398	428	459	490	520	551	581
1929		612	643	671	702	732	763	793	824	855	885	916	946
1930		977	*008	*036	*067	*097	*128	*158	*189	*220	*250	*281	*311
1931	2426	342	373	401	432	462	493	523	554	585	615	646	676
1932		707	738	767	798	828	859	889	920	951	981	*012	*042
1933	2427	073	104	132	163	193	224	254	285	316	346	377	407
1934		438	469	497	528	558	589	619	650	681	711	742	772
1935		803	834	862	893	923	954	984	*015	*046	*076	*107	*137
1936	2428	168	199	228	259	289	320	350	381	412	442	473	503
1937		534	565	593	624	654	685	715	746	777	807	838	868
1938		899	930	958	989	*019	*050	*080	*111	*142	*172	*203	*233
1939	2429	264	295	323	354	384	415	445	476	507	537	568	598

Red.	0^m	1^m	2^m	3^m
s	h m s	h m s	h m s	h m s
0	0 0 0	6 5 15	12 10 29	18 15 44
1	0 6 5	6 11 20	12 16 34	18 21 49
2	0 12 10	6 17 25	12 22 40	18 27 54
3	0 18 16	6 23 30	12 28 45	18 33 59
4	0 24 21	6 29 36	12 34 50	18 40 5
5	0 30 26	6 35 41	12 40 55	18 46 10
6	0 36 31	6 41 46	12 47 1	18 52 15
7	0 42 37	6 47 51	12 53 6	18 58 20
8	0 48 42	6 53 56	12 59 11	19 4 26
9	0 54 47	7 0 2	13 5 16	19 10 31
10	1 0 52	7 6 7	13 11 21	19 16 36
11	1 6 58	7 12 12	13 17 27	19 22 41
12	1 13 3	7 18 17	13 23 32	19 28 47
13	1 19 8	7 24 23	13 29 37	19 34 52
14	1 25 13	7 30 28	13 35 42	19 40 57
15	1 31 19	7 36 33	13 41 48	19 47 2
16	1 37 24	7 42 38	13 47 53	19 53 7
17	1 43 29	7 48 44	13 53 58	19 59 13
18	1 49 34	7 54 49	14 0 3	20 5 18
19	1 55 40	8 0 54	14 6 9	20 11 23
20	2 1 45	8 6 59	14 12 14	20 17 28
21	2 7 50	8 13 5	14 18 19	20 23 34
22	2 13 55	8 19 10	14 24 24	20 29 39
23	2 20 1	8 25 15	14 30 30	20 35 44
24	2 26 6	8 31 20	14 36 35	20 41 49
25	2 32 11	8 37 26	14 42 40	20 47 55
26	2 38 16	8 43 31	14 48 45	20 54 0
27	2 44 22	8 49 36	14 54 51	21 0 5
28	2 50 27	8 55 41	15 0 56	21 6 10
29	2 56 32	9 1 47	15 7 1	21 12 16
30	3 2 37	9 7 52	15 13 6	21 18 21
31	3 8 43	9 13 57	15 19 12	21 24 26
32	3 14 48	9 20 2	15 25 17	21 30 31
33	3 20 53	9 26 8	15 31 22	21 36 37
34	3 26 58	9 32 13	15 37 27	21 42 42
35	3 33 3	9 38 18	15 43 33	21 48 47
36	3 39 9	9 44 23	15 49 38	21 54 52
37	3 45 14	9 50 28	15 55 43	22 0 58
38	3 51 19	9 56 34	16 1 48	22 7 3
39	3 57 24	10 2 39	16 7 54	22 13 8
40	4 3 30	10 8 44	16 13 59	22 19 13
41	4 9 35	10 14 49	16 20 4	22 25 19
42	4 15 40	10 20 55	16 26 9	22 31 24
43	4 21 45	10 27 0	16 32 14	22 37 29
44	4 27 51	10 33 5	16 38 20	22 43 34
45	4 33 56	10 39 10	16 44 25	22 49 39
46	4 40 1	10 45 16	16 50 30	22 55 45
47	4 46 6	10 51 21	16 56 35	23 1 50
48	4 52 12	10 57 26	17 2 41	23 7 55
49	4 58 17	11 3 31	17 8 46	23 14 0
50	5 4 22	11 9 37	17 14 51	23 20 6
51	5 10 27	11 15 42	17 20 56	23 26 11
52	5 16 33	11 21 47	17 27 2	23 32 16
53	5 22 38	11 27 52	17 33 7	23 38 21
54	5 28 43	11 33 58	17 39 12	23 44 27
55	5 34 48	11 40 3	17 45 17	23 50 32
56	5 40 54	11 46 8	17 51 23	23 56 37
57	5 46 59	11 52 13	17 57 28	24 2 42
58	5 53 4	11 58 19	18 3 33	24 8 48
59	5 59 9	12 4 24	18 9 38	24 14 53

Red.		Red.	
s	m s	s	m s
0.00	0 0	0.50	3 3
0.01	0 4	0.51	3 6
0.02	0 7	0.52	3 10
0.03	0 11	0.53	3 14
0.04	0 15	0.54	3 17
0.05	0 18	0.55	3 21
0.06	0 22	0.56	3 25
0.07	0 26	0.57	3 28
0.08	0 29	0.58	3 32
0.09	0 33	0.59	3 35
0.10	0 37	0.60	3 39
0.11	0 40	0.61	3 43
0.12	0 44	0.62	3 46
0.13	0 47	0.63	3 50
0.14	0 51	0.64	3 54
0.15	0 55	0.65	3 57
0.16	0 58	0.66	4 1
0.17	1 2	0.67	4 5
0.18	1 6	0.68	4 8
0.19	1 9	0.69	4 12
0.20	1 13	0.70	4 16
0.21	1 17	0.71	4 19
0.22	1 20	0.72	4 23
0.23	1 24	0.73	4 27
0.24	1 28	0.74	4 30
0.25	1 31	0.75	4 34
0.26	1 35	0.76	4 38
0.27	1 39	0.77	4 41
0.28	1 42	0.78	4 45
0.29	1 46	0.79	4 49
0.30	1 50	0.80	4 52
0.31	1 53	0.81	4 56
0.32	1 57	0.82	4 59
0.33	2 1	0.83	5 3
0.34	2 4	0.84	5 7
0.35	2 8	0.85	5 10
0.36	2 11	0.86	5 14
0.37	2 15	0.87	5 18
0.38	2 19	0.88	5 21
0.39	2 22	0.89	5 25
0.40	2 26	0.90	5 29
0.41	2 30	0.91	5 32
0.42	2 33	0.92	5 36
0.43	2 37	0.93	5 40
0.44	2 41	0.94	5 43
0.45	2 44	0.95	5 47
0.46	2 48	0.96	5 51
0.47	2 52	0.97	5 54
0.48	2 55	0.98	5 58
0.49	2 59	0.99	6 2
0.50	3 3	1.00	6 5

Die Reduktion ist zur mittl. Zeit zu addieren

Red.	0^m	1^m	2^m	3^m	Red.		Red.	
s	h m s	h m s	h m s	h m s	s	m s	s	m s
0	0 0 0	6 6 15	12 12 29	18 18 44	0.00	0 0	0.50	3 3
1	0 6 6	6 12 21	12 18 35	18 24 50	0.01	0 4	0.51	3 7
2	0 12 12	6 18 27	12 24 42	18 30 56	0.02	0 7	0.52	3 10
3	0 18 19	6 24 33	12 30 48	18 37 2	0.03	0 11	0.53	3 14
4	0 24 25	6 30 40	12 36 54	18 43 9	0.04	0 15	0.54	3 18
5	0 30 31	6 36 46	12 43 0	18 49 15	0.05	0 18	0.55	3 21
6	0 36 37	6 42 52	12 49 7	18 55 21	0.06	0 22	0.56	3 25
7	0 42 44	6 48 58	12 55 13	19 1 27	0.07	0 26	0.57	3 29
8	0 48 50	6 55 4	13 1 19	19 7 34	0.08	0 29	0.58	3 32
9	0 54 56	7 1 11	13 7 25	19 13 40	0.09	0 33	0.59	3 36
10	1 1 2	7 7 17	13 13 31	19 19 46	0.10	0 37	0.60	3 40
11	1 7 9	7 13 23	13 19 38	19 25 52	0.11	0 40	0.61	3 43
12	1 13 15	7 19 29	13 25 44	19 31 59	0.12	0 44	0.62	3 47
13	1 19 21	7 25 36	13 31 50	19 38 5	0.13	0 48	0.63	3 51
14	1 25 27	7 31 42	13 37 56	19 44 11	0.14	0 51	0.64	3 54
15	1 31 34	7 37 48	13 44 3	19 50 17	0.15	0 55	0.65	3 58
16	1 37 40	7 43 54	13 50 9	19 56 23	0.16	0 59	0.66	4 2
17	1 43 46	7 50 1	13 56 15	20 2 30	0.17	1 2	0.67	4 5
18	1 49 52	7 56 7	14 2 21	20 8 36	0.18	1 6	0.68	4 9
19	1 55 59	8 2 13	14 8 28	20 14 42	0.19	1 10	0.69	4 13
20	2 2 5	8 8 19	14 14 34	20 20 48	0.20	1 13	0.70	4 16
21	2 8 11	8 14 26	14 20 40	20 26 55	0.21	1 17	0.71	4 20
22	2 14 17	8 20 32	14 26 46	20 33 1	0.22	1 21	0.72	4 24
23	2 20 24	8 26 38	14 32 53	20 39 7	0.23	1 24	0.73	4 27
24	2 26 30	8 32 44	14 38 59	20 45 13	0.24	1 28	0.74	4 31
25	2 32 36	8 38 51	14 45 5	20 51 20	0.25	1 32	0.75	4 35
26	2 38 42	8 44 57	14 51 11	20 57 26	0.26	1 35	0.76	4 38
27	2 44 49	8 51 3	14 57 18	21 3 32	0.27	1 39	0.77	4 42
28	2 50 55	8 57 9	15 3 24	21 9 38	0.28	1 43	0.78	4 46
29	2 57 1	9 3 16	15 9 30	21 15 45	0.29	1 46	0.79	4 49
30	3 3 7	9 9 22	15 15 36	21 21 51	0.30	1 50	0.80	4 53
31	3 9 14	9 15 28	15 21 43	21 27 57	0.31	1 54	0.81	4 57
32	3 15 20	9 21 34	15 27 49	21 34 3	0.32	1 57	0.82	5 0
33	3 21 26	9 27 41	15 33 55	21 40 10	0.33	2 1	0.83	5 4
34	3 27 32	9 33 47	15 40 1	21 46 16	0.34	2 5	0.84	5 8
35	3 33 38	9 39 53	15 46 8	21 52 22	0.35	2 8	0.85	5 11
36	3 39 45	9 45 59	15 52 14	21 58 28	0.36	2 12	0.86	5 15
37	3 45 51	9 52 5	15 58 20	22 4 35	0.37	2 16	0.87	5 19
38	3 51 57	9 58 12	16 4 26	22 10 41	0.38	2 19	0.88	5 22
39	3 58 3	10 4 18	16 10 33	22 16 47	0.39	2 23	0.89	5 26
40	4 4 10	10 10 24	16 16 39	22 22 53	0.40	2 26	0.90	5 30
41	4 10 16	10 16 30	16 22 45	22 29 0	0.41	2 30	0.91	5 33
42	4 16 22	10 22 37	16 28 51	22 35 6	0.42	2 34	0.92	5 37
43	4 22 28	10 28 43	16 34 57	22 41 12	0.43	2 37	0.93	5 41
44	4 28 35	10 34 49	16 41 4	22 47 18	0.44	2 41	0.94	5 44
45	4 34 41	10 40 55	16 47 10	22 53 24	0.45	2 45	0.95	5 48
46	4 40 47	10 47 2	16 53 16	22 59 31	0.46	2 48	0.96	5 52
47	4 46 53	10 53 8	16 59 22	23 5 37	0.47	2 52	0.97	5 55
48	4 53 0	10 59 14	17 5 29	23 11 43	0.48	2 56	0.98	5 59
49	4 59 6	11 5 20	17 11 35	23 17 49	0.49	2 59	0.99	6 3
50	5 5 12	11 11 27	17 17 41	23 23 56	0.50	3 3	1.00	6 6
51	5 11 18	11 17 33	17 23 47	23 30 2				
52	5 17 25	11 23 39	17 29 54	23 36 8				
53	5 23 31	11 29 45	17 36 0	23 42 14				
54	5 29 37	11 35 52	17 42 6	23 48 21				
55	5 35 43	11 41 58	17 48 12	23 54 27				
56	5 41 50	11 48 4	17 54 19	24 0 33				
57	5 47 56	11 54 10	18 0 25	24 6 39				
58	5 54 2	12 0 17	18 6 31	24 12 46				
59	6 0 8	12 6 23	18 12 37	24 18 52				

Die Reduktion ist von der Sternzeit zu subtrahieren

	0^h	1^h	2^h	3^h	4^h	5^h		
m	d	d	d	d	d	d	s	d
0	0.000000	0.041667	0.083333	0.125000	0.166667	0.208333	0	0.000000
1	.000694	.042361	.084028	.125694	.167361	.209028	1	.000012
2	.001389	.043056	.084722	.126389	.168056	.209722	2	.000023
3	.002083	.043750	.085417	.127083	.168750	.210417	3	.000035
4	.002778	.044444	.086111	.127778	.169444	.211111	4	.000046
5	0.003472	0.045139	0.086806	0.128472	0.170139	0.211806	5	0.000058
6	.004167	.045833	.087500	.129167	.170833	.212500	6	.000069
7	.004861	.046528	.088194	.129861	.171528	.213194	7	.000081
8	.005556	.047222	.088889	.130556	.172222	.213889	8	.000093
9	.006250	.047917	.089583	.131250	.172917	.214583	9	.000104
10	0.006944	0.048611	0.090278	0.131944	0.173611	0.215278	10	0.000116
11	.007639	.049306	.090972	.132639	.174306	.215972	11	.000127
12	.008333	.050000	.091667	.133333	.175000	.216667	12	.000139
13	.009028	.050694	.092361	.134028	.175694	.217361	13	.000150
14	.009722	.051389	.093056	.134722	.176389	.218056	14	.000162
15	0.010417	0.052083	0.093750	0.135417	0.177083	0.218750	15	0.000174
16	.011111	.052778	.094444	.136111	.177778	.219444	16	.000185
17	.011806	.053472	.095139	.136806	.178472	.220139	17	.000197
18	.012500	.054167	.095833	.137500	.179167	.220833	18	.000208
19	.013194	.054861	.096528	.138194	.179861	.221528	19	.000220
20	0.013889	0.055556	0.097222	0.138889	0.180556	0.222222	20	0.000231
21	.014583	.056250	.097917	.139583	.181250	.222917	21	.000243
22	.015278	.056944	.098611	.140278	.181944	.223611	22	.000255
23	.015972	.057639	.099306	.140972	.182639	.224306	23	.000266
24	.016667	.058333	.100000	.141667	.183333	.225000	24	.000278
25	0.017361	0.059028	0.100694	0.142361	0.184028	0.225694	25	0.000289
26	.018056	.059722	.101389	.143056	.184722	.226389	26	.000301
27	.018750	.060417	.102083	.143750	.185417	.227083	27	.000313
28	.019444	.061111	.102778	.144444	.186111	.227778	28	.000324
29	.020139	.061806	.103472	.145139	.186806	.228472	29	.000336
30	0.020833	0.062500	0.104167	0.145833	0.187500	0.229167	30	0.000347
31	.021528	.063194	.104861	.146528	.188194	.229861	31	.000359
32	.022222	.063889	.105556	.147222	.188889	.230556	32	.000370
33	.022917	.064583	.106250	.147917	.189583	.231250	33	.000382
34	.023611	.065278	.106944	.148611	.190278	.231944	34	.000394
35	0.024306	0.065972	0.107639	0.149306	0.190972	0.232639	35	0.000405
36	.025000	.066667	.108333	.150000	.191667	.233333	36	.000417
37	.025694	.067361	.109028	.150694	.192361	.234028	37	.000428
38	.026389	.068056	.109722	.151389	.193056	.234722	38	.000440
39	.027083	.068750	.110417	.152083	.193750	.235417	39	.000451
40	0.027778	0.069444	0.111111	0.152778	0.194444	0.236111	40	0.000463
41	.028472	.070139	.111806	.153472	.195139	.236806	41	.000475
42	.029167	.070833	.112500	.154167	.195833	.237500	42	.000486
43	.029861	.071528	.113194	.154861	.196528	.238194	43	.000498
44	.030556	.072222	.113889	.155556	.197222	.238889	44	.000509
45	0.031250	0.072917	0.114583	0.156250	0.197917	0.239583	45	0.000521
46	.031944	.073611	.115278	.156944	.198611	.240278	46	.000532
47	.032639	.074306	.115972	.157639	.199306	.240972	47	.000544
48	.033333	.075000	.116667	.158333	.200000	.241667	48	.000556
49	.034028	.075694	.117361	.159028	.200694	.242361	49	.000567
50	0.034722	0.076389	0.118056	0.159722	0.201389	0.243056	50	0.000579
51	.035417	.077083	.118750	.160417	.202083	.243750	51	.000590
52	.036111	.077778	.119444	.161111	.202778	.244444	52	.000602
53	.036806	.078472	.120139	.161806	.203472	.245139	53	.000613
54	.037500	.079167	.120833	.162500	.204167	.245833	54	.000625
55	0.038194	0.079861	0.121528	0.163194	0.204861	0.246528	55	0.000637
56	.038889	.080556	.122222	.163889	.205556	.247222	56	.000648
57	.039583	.081250	.122917	.164583	.206250	.247917	57	.000660
58	.040278	.081944	.123611	.165278	.206944	.248611	58	.000671
59	.040972	.082639	.124306	.165972	.207639	.249306	59	.000683

m	6^h d	7^h d	8^h d	9^h d	10^h d	11^h d	s	d
0	0.250000	0.291667	0.333333	0.375000	0.416667	0.458333	0	0.000000
1	.250694	.292361	.334028	.375694	.417361	.459028	1	.000012
2	.251389	.293056	.334722	.376389	.418056	.459722	2	.000023
3	.252083	.293750	.335417	.377083	.418750	.460417	3	.000035
4	.252778	.294444	.336111	.377778	.419444	.461111	4	.000046
5	0.253472	0.295139	0.336806	0.378472	0.420139	0.461806	5	0.000058
6	.254167	.295833	.337500	.379167	.420833	.462500	6	.000069
7	.254861	.296528	.338194	.379861	.421528	.463194	7	.000081
8	.255556	.297222	.338889	.380556	.422222	.463889	8	.000093
9	.256250	.297917	.339583	.381250	.422917	.464583	9	.000104
10	0.256944	0.298611	0.340278	0.381944	0.423611	0.465278	10	0.000116
11	.257639	.299306	.340972	.382639	.424306	.465972	11	.000127
12	.258333	.300000	.341667	.383333	.425000	.466667	12	.000139
13	.259028	.300694	.342361	.384028	.425694	.467361	13	.000150
14	.259722	.301389	.343056	.384722	.426389	.468056	14	.000162
15	0.260417	0.302083	0.343750	0.385417	0.427083	0.468750	15	0.000174
16	.261111	.302778	.344444	.386111	.427778	.469444	16	.000185
17	.261806	.303472	.345139	.386806	.428472	.470139	17	.000197
18	.262500	.304167	.345833	.387500	.429167	.470833	18	.000208
19	.263194	.304861	.346528	.388194	.429861	.471528	19	.000220
20	0.263889	0.305556	0.347222	0.388889	0.430556	0.472222	20	0.000231
21	.264583	.306250	.347917	.389583	.431250	.472917	21	.000243
22	.265278	.306944	.348611	.390278	.431944	.473611	22	.000255
23	.265972	.307639	.349306	.390972	.432639	.474306	23	.000266
24	.266667	.308333	.350000	.391667	.433333	.475000	24	.000278
25	0.267361	0.309028	0.350694	0.392361	0.434028	0.475694	25	0.000289
26	.268056	.309722	.351389	.393056	.434722	.476389	26	.000301
27	.268750	.310417	.352083	.393750	.435417	.477083	27	.000313
28	.269444	.311111	.352778	.394444	.436111	.477778	28	.000324
29	.270139	.311806	.353472	.395139	.436806	.478472	29	.000336
30	0.270833	0.312500	0.354167	0.395833	0.437500	0.479167	30	0.000347
31	.271528	.313194	.354861	.396528	.438194	.479861	31	.000359
32	.272222	.313889	.355556	.397222	.438889	.480556	32	.000370
33	.272917	.314583	.356250	.397917	.439583	.481250	33	.000382
34	.273611	.315278	.356944	.398611	.440278	.481944	34	.000394
35	0.274306	0.315972	0.357639	0.399306	0.440972	0.482639	35	0.000405
36	.275000	.316667	.358333	.400000	.441667	.483333	36	.000417
37	.275694	.317361	.359028	.400694	.442361	.484028	37	.000428
38	.276389	.318056	.359722	.401389	.443056	.484722	38	.000440
39	.277083	.318750	.360417	.402083	.443750	.485417	39	.000451
40	0.277778	0.319444	0.361111	0.402778	0.444444	0.486111	40	0.000463
41	.278472	.320139	.361806	.403472	.445139	.486806	41	.000475
42	.279167	.320833	.362500	.404167	.445833	.487500	42	.000486
43	.279861	.321528	.363194	.404861	.446528	.488194	43	.000498
44	.280556	.322222	.363889	.405556	.447222	.488889	44	.000509
45	0.281250	0.322917	0.364583	0.406250	0.447917	0.489583	45	0.000521
46	.281944	.323611	.365278	.406944	.448611	.490278	46	.000532
47	.282639	.324306	.365972	.407639	.449306	.490972	47	.000544
48	.283333	.325000	.366667	.408333	.450000	.491667	48	.000556
49	.284028	.325694	.367361	.409028	.450694	.492361	49	.000567
50	0.284722	0.326389	0.368056	0.409722	0.451389	0.493056	50	0.000579
51	.285417	.327083	.368750	.410417	.452083	.493750	51	.000590
52	.286111	.327778	.369444	.411111	.452778	.494444	52	.000602
53	.286806	.328472	.370139	.411806	.453472	.495139	53	.000613
54	.287500	.329167	.370833	.412500	.454167	.495833	54	.000625
55	0.288194	0.329861	0.371528	0.413194	0.454861	0.496528	55	0.000637
56	.288889	.330556	.372222	.413889	.455556	.497222	56	.000648
57	.289583	.331250	.372917	.414583	.456250	.497917	57	.000660
58	.290278	.331944	.373611	.415278	.456944	.498611	58	.000671
59	.290972	.332639	.374306	.415972	.457639	.499306	59	.000683

Hilfstafeln

zur Berechnung der optischen Mondlibration

$\lambda - \Omega$	$\Delta\lambda$	a	B	$\lambda - \Omega$	$\lambda - \Omega$	$\Delta\lambda$	a	B	$\lambda - \Omega$
°	′		° ′	°	°	′		° ′	°
0	+0.0+	−0.0269+	−0 0.0+	180	45	+0.6+	−0.0190+	−1 5.3+	225
1	0.0	268	0 1.6	181	46	0.6	187	1 6.4	226
2	0.0	268	0 3.2	182	47	0.6	183	1 7.5	227
3	0.1	268	0 4.8	183	48	0.6	180	1 8.6	228
4	0.1	268	0 6.4	184	49	0.6	176	1 9.7	229
5	+0.1+	−0.0268+	−0 8.0+	185	50	+0.6+	−0.0173+	−1 10.7+	230
6	0.1	267	0 9.7	186	51	0.6	169	1 11.8	231
7	0.1	267	0 11.3	187	52	0.6	165	1 12.8	232
8	0.2	266	0 12.9	188	53	0.6	162	1 13.8	233
9	0.2	265	0 14.4	189	54	0.6	158	1 14.7	234
10	+0.2+	−0.0264+	−0 16.0+	190	55	+0.6+	−0.0154+	−1 15.6+	235
11	0.2	264	0 17.6	191	56	0.6	150	1 16.5	236
12	0.2	263	0 19.2	192	57	0.6	146	1 17.4	237
13	0.3	262	0 20.8	193	58	0.6	142	1 18.3	238
14	0.3	261	0 22.3	194	59	0.5	138	1 19.2	239
15	+0.3+	−0.0259+	−0 23.9+	195	60	+0.5+	−0.0134+	−1 20.0+	240
16	0.3	258	0 25.5	196	61	0.5	130	1 20.8	241
17	0.3	257	0 27.0	197	62	0.5	126	1 21.5	242
18	0.4	255	0 28.5	198	63	0.5	122	1 22.3	243
19	0.4	254	0 30.1	199	64	0.5	118	1 23.0	244
20	+0.4+	−0.0252+	−0 31.6+	200	65	+0.5+	−0.0114+	−1 23.7+	245
21	0.4	251	0 33.1	201	66	0.5	109	1 24.4	246
22	0.4	249	0 34.6	202	67	0.4	105	1 25.0	247
23	0.4	247	0 36.1	203	68	0.4	101	1 25.6	248
24	0.5	245	0 37.6	204	69	0.4	096	1 26.2	249
25	+0.5+	−0.0243+	−0 39.0+	205	70	+0.4+	−0.0092+	−1 26.8+	250
26	0.5	241	0 40.5	206	71	0.4	87	1 27.3	251
27	0.5	239	0 41.9	207	72	0.4	83	1 27.8	252
28	0.5	237	0 43.4	208	73	0.3	79	1 28.3	253
29	0.5	235	0 44.8	209	74	0.3	74	1 28.8	254
30	+0.5+	−0.0233+	−0 46.2+	210	75	+0.3+	−0.0070+	−1 29.2+	255
31	0.5	230	0 47.6	211	76	0.3	65	1 29.6	256
32	0.6	228	0 48.9	212	77	0.3	60	1 30.0	257
33	0.6	225	0 50.3	213	78	0.2	56	1 30.3	258
34	0.6	223	0 51.6	214	79	0.2	51	1 30.6	259
35	+0.6+	−0.0220+	−0 53.0+	215	80	+0.2+	−0.0047+	−1 30.9+	260
36	0.6	217	0 54.3	216	81	0.2	42	1 31.2	261
37	0.6	214	0 55.6	217	82	0.2	37	1 31.4	262
38	0.6	212	0 56.9	218	83	0.1	33	1 31.6	263
39	0.6	209	0 58.1	219	84	0.1	28	1 31.8	264
40	+0.6+	−0.0206+	−0 59.4+	220	85	+0.1+	−0.0023+	−1 32.0+	265
41	0.6	203	1 0.6	221	86	0.1	19	1 32.1	266
42	0.6	200	1 1.8	222	87	0.1	14	1 32.2	267
43	0.6	196	1 3.0	223	88	0.0	09	1 32.3	268
44	0.6	193	1 4.1	224	89	0.0	05	1 32.3	269
45	+0.6+	−0.0190+	−1 5.3+	225	90	+0.0+	−0.0000+	−1 32.3+	270

$$l' = \lambda + \Delta\lambda - a(B - \beta) - L_{☾}; \quad b' = B - \beta$$

l', b' = Optische Libration der Mondmitte in selenographischer Länge und Breite

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort

$L_{☾}$ = Mittlere Länge des Mondes, Ω = Mondknoten.

Hilfstafeln

zur Berechnung der optischen Mondlibration

λ-☊	Δλ	a	B	λ-☊	λ-☊	Δλ	a	B	λ-☊
°	'		° '	°	°	'		° '	°
90	—0.0—	+0.0000—	—1 32.3+	270	135	—0.6—	+0.0190—	—1 5.3+	315
91	0.0	05	1 32.3	271	136	0.6	193	1 4.1	316
92	0.0	09	1 32.3	272	137	0.6	196	1 3.0	317
93	0.1	14	1 32.2	273	138	0.6	200	1 1.8	318
94	0.1	19	1 32.1	274	139	0.6	203	1 0.6	319
95	—0.1—	+0.0023—	—1 32.0+	275	140	—0.6—	+0.0206—	—0 59.4+	320
96	0.1	28	1 31.8	276	141	0.6	209	0 58.1	321
97	0.1	33	1 31.6	277	142	0.6	212	0 56.9	322
98	0.2	37	1 31.4	278	143	0.6	214	0 55.6	323
99	0.2	42	1 31.2	279	144	0.6	217	0 54.3	324
100	—0.2—	+0.0047—	—1 30.9+	280	145	—0.6—	+0.0220—	—0 53.0+	325
101	0.2	51	1 30.6	281	146	0.6	223	0 51.6	326
102	0.2	56	1 30.3	282	147	0.6	225	0 50.3	327
103	0.3	60	1 30.0	283	148	0.6	228	0 48.9	328
104	0.3	65	1 29.6	284	149	0.5	230	0 47.6	329
105	—0.3—	+0.0070—	—1 29.2+	285	150	—0.5—	+0.0233—	—0 46.2+	330
106	0.3	74	1 28.8	286	151	0.5	235	0 44.8	331
107	0.3	79	1 28.3	287	152	0.5	237	0 43.4	332
108	0.4	83	1 27.8	288	153	0.5	239	0 41.9	333
109	0.4	87	1 27.3	289	154	0.5	241	0 40.5	334
110	—0.4—	+0.0092—	—1 26.8+	290	155	—0.5—	+0.0243—	—0 39.0+	335
111	0.4	096	1 26.2	291	156	0.5	245	0 37.6	336
112	0.4	101	1 25.6	292	157	0.4	247	0 36.1	337
113	0.4	105	1 25.0	293	158	0.4	249	0 34.6	338
114	0.5	109	1 24.4	294	159	0.4	251	0 33.1	339
115	—0.5—	+0.0114—	—1 23.7+	295	160	—0.4—	+0.0252—	—0 31.6+	340
116	0.5	118	1 23.0	296	161	0.4	254	0 30.1	341
117	0.5	122	1 22.3	297	162	0.4	255	0 28.5	342
118	0.5	126	1 21.5	298	163	0.3	257	0 27.0	343
119	0.5	130	1 20.8	299	164	0.3	258	0 25.5	344
120	—0.5—	+0.0134—	—1 20.0+	300	165	—0.3—	+0.0259—	—0 23.9+	345
121	0.5	138	1 19.2	301	166	0.3	261	0 22.3	346
122	0.6	142	1 18.3	302	167	0.3	262	0 20.8	347
123	0.6	146	1 17.4	303	168	0.2	263	0 19.2	348
124	0.6	150	1 16.5	304	169	0.2	264	0 17.6	349
125	—0.6—	+0.0154—	—1 15.6+	305	170	—0.2—	+0.0264—	—0 16.0+	350
126	0.6	158	1 14.7	306	171	0.2	265	0 14.4	351
127	0.6	162	1 13.8	307	172	0.2	266	0 12.9	352
128	0.6	165	1 12.8	308	173	0.1	267	0 11.3	353
129	0.6	169	1 11.8	309	174	0.1	267	0 9.7	354
130	—0.6—	+0.0173—	—1 10.7+	310	175	—0.1—	+0.0268—	—0 8.0+	355
131	0.6	176	1 9.7	311	176	0.1	268	0 6.4	356
132	0.6	180	1 8.6	312	177	0.1	268	0 4.8	357
133	0.6	183	1 7.5	313	178	0.0	268	0 3.2	358
134	0.6	187	1 6.4	314	179	0.0	268	0 1.6	359
135	—0.6—	+0.0190—	—1 5.3+	315	180	—0.0—	+0.0269—	—0 0.0+	360

$$l' = \lambda + \Delta\lambda - a(B - \beta) - L_{☾}; \quad b' = B - \beta$$

l', b' = Optische Libration der Mondmitte in selenographischer Länge und Breite
λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort
$L_{☾}$ = Mittlere Länge des Mondes, ☊ = Mondknoten.

Hilfsgrößen

zur Berechnung der geozentrischen Koordinaten

$\rho \sin \varphi' = s \sin \varphi \, ; \qquad \rho \cos \varphi' = c \cos \varphi$

φ	log *s*		log *c*		φ	log *s*		log *c*	
±0°	9.9970705	4	0.0000000	4	±40°	9.9976745	252	0.0006040	252
1	.9970709	14	.0000004	14	41	.9976997	254	.0006292	254
2	.9970723	22	.0000018	22	42	.9977251	255	.0006546	255
3	.9970745	31	.0000040	31	43	.9977506	255	.0006801	255
4	.9970776	40	.0000071	40	44	.9977761	255	.0007056	255
5	9.9970816	49	0.0000111	49	45	9.9978016	256	0.0007311	256
6	.9970865	57	.0000160	57	46	.9978272	255	.0007567	255
7	.9970922	66	.0000217	66	47	.9978527	255	.0007822	255
8	.9970988	74	.0000283	74	48	.9978782	254	.0008077	254
9	.9971062	83	.0000357	83	49	.9979036	252	.0008331	252
10	9.9971145	92	0.0000440	92	50	9.9979288	252	0.0008583	252
11	.9971237	99	.0000532	99	51	.9979540	249	.0008835	249
12	.9971336	108	.0000631	108	52	.9979789	247	.0009084	247
13	.9971444	116	.0000739	116	53	.9980036	245	.0009331	245
14	.9971560	123	.0000855	123	54	.9980281	242	.0009576	242
15	9.9971683	131	0.0000978	131	55	9.9980523	239	0.0009818	239
16	.9971814	139	.0001109	139	56	.9980762	235	.0010057	235
17	.9971953	146	.0001248	146	57	.9980997	232	.0010292	232
18	.9972099	154	.0001394	154	58	.9981229	228	.0010524	228
19	.9972253	160	.0001548	160	59	.9981457	224	.0010752	224
20	9.9972413	168	0.0001708	168	60	9.9981681	220	0.0010976	220
21	.9972581	174	.0001876	174	61	.9981901	215	.0011196	215
22	.9972755	180	.0002050	180	62	.9982116	209	.0011411	209
23	.9972935	187	.0002230	187	63	.9982325	205	.0011620	205
24	.9973122	192	.0002417	192	64	.9982530	199	.0011825	199
25	9.9973314	198	0.0002609	198	65	9.9982729	193	0.0012024	193
26	.9973512	204	.0002807	204	66	.9982922	188	.0012217	188
27	.9973716	209	.0003011	209	67	.9983110	181	.0012405	181
28	.9973925	214	.0003220	214	68	.9983291	175	.0012586	175
29	.9974139	219	.0003434	219	69	.9983466	168	.0012761	168
30	9.9974358	223	0.0003653	223	70	9.9983634	161	0.0012929	161
31	.9974581	227	.0003876	227	71	.9983795	154	.0013090	154
32	.9974808	232	.0004103	232	72	.9983949	147	.0013244	147
33	.9975040	235	.0004335	235	73	.9984096	140	.0013391	140
34	.9975275	238	.0004570	238	74	.9984236	132	.0013531	132
35	9.9975513	241	0.0004808	241	75	9.9984368	124	0.0013663	124
36	.9975754	245	.0005049	245	76	.9984492	117	.0013787	117
37	.9975999	246	.0005294	246	77	.9984609	108	.0013904	108
38	.9976245	249	.0005540	249	78	9984717	100	.0014012	100
39	.9976494	251	.0005789	251	79	.9984817	92	.0014112	92
40	9.9976745		0.0006040		80	9.9984909		0.0014204	

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Abbadia	69	+43 22 52.2	+ 0 7 0.1	+ 1.15	+43 11 17.8	9.999317
Åbo	—	+60 26 56.8	— 1 29 6.30	— 14.64	+60 16 58.8	9.998894
Adelaide	41	—34 55 35.1	— 9 14 19.90	— 91.06	—34 44 42.7	9.999526
Albany (N. Stw.)[1]	40	+42 39 12.8	+ 4 55 7.12	+ 48.48	+42 27 39.7	9.999334
Algier (N. Stw.)[2]	345	+36 48 4.8	— 0 12 8.47	— 1.99	+36 36 58.1	9.999497
Allegheny (N. Stw.)	370	+40 28 58.1	+ 5 20 5.39	+ 52.59	+40 17 31.4	9.999411
Allegheny (A. Stw.)	349	+40 27 41.6	+ 5 20 2.97	+ 52.58	+40 16 15.0	9.999411
Amherst (Neue Stw.)	110	+42 21 56.5	+ 4 50 5.98	+ 47.66	+42 10 24.0	9.999346
Amherst (Alte Stw.)	122	+42 22 17.1	+ 4 50 4.72	+ 47.66	+42 10 44.6	9.999347
Ann Arbor	282	+42 16 48.7	+ 5 34 55.27	+ 55.02	+42 5 16.4	9.999360
Arcetri Zentr. d. St.[3]	184	+43 45 14.4	— 0 45 1.30	— 7.39	+43 33 39.5	9.999316
Arequipa[4]	2451	—16 22 28.0	+ 4 46 11.73	+ 47.02	—16 16 12.7	0.000052
Armagh	64	+54 21 11	+ 0 26 35.48	+ 4.37	+54 10 11.4	9.999041
Athen	110	+37 58 15.5	— 1 34 52.2	— 15.58	+37 47 1.2	9.999456
Bamberg (Remeis' St.)	288	+49 53 6.0	— 0 43 33.57	— 7.15	+49 41 40.0	9.999167
Barcelona[5]	415	+41 24 59.3	— 0 8 30.2	— 1.41	+41 13 29.4	9.999391
Beloit	245	+42 30 8.4	+ 5 56 7.4	+ 58.51	+42 18 35.6	9.999352
Bergedorf Mer.-Kr.	41	+53 28 46.9	— 0 40 57.74	— 6.73	+53 17 40.8	9.999060
Berkeley	94	+37 52 23.5	+ 8 9 2.80	+ 80.34	+37 41 9.8	9.999458
Berlin-Babelsberg[6]	82	+52 24 24.2	— 0 52 25.49	— 8.61	+52 13 11.1	9.999089
Berlin (Urania)	—	+52 31 30.7	— 0 53 27.40	— 8.78	+52 20 18.3	9.999081
Bern	573	+46 57 8.7	— 0 29 45.55	— 4.89	+46 45 34.5	9.999261
Besançon	312	+47 14 59.0	— 0 23 57.1	— 3.93	+47 3 25.3	9.999236
Bloemfontein Filiale d. Detroit Obs.	1490	—29 5 45	— 1 44 57	— 17.24	—28 55 55	9.999758
Bloemfontein Boyden Stat. d. Harv. Obs.	1379	—29 12	— 1 45 57	— 17.40	—29 2	9.999748
Bogota	2640	+ 4 35 55.2	+ 4 56 19.51	+ 48.68	+ 4 34 4.4	0.000111
Bologna Zentr. d. Stw.	84	+44 29 52.8	— 0 45 24.48	— 7.46	+44 18 17.3	9.999290
Bombay (Colaba)	19	+18 53 36.2	— 4 51 15.60	— 47.85	+18 46 31.1	9.999849
Bonn Zentr. d. Stw.	62	+50 43 45.0	— 0 28 23.18	— 4.66	+50 32 22.7	9.999130
Bordeaux (Floirac)	73	+44 50 7.2	+ 0 2 6.56	+ 0.35	+44 38 31.6	9.999281
Boston (University)[7]	31	+42 20 58	+ 4 44 19.1	+ 46.71	+42 9 25.6	9.999341
Bothkamp[8]	32	+54 12 9.6	— 0 40 31.2	— 6.65	+54 1 8.8	9.999042
Breslau Zentr. d. Stw.	147	+51 6 56.5	— 1 8 8.72	— 11.19	+50 55 36.1	9.999126
Breslau Neue Sternw.	117	+51 6 41	— 1 8 21.19	— 11.23	+50 55 20.6	9.999130
Brisbane	51	—27 28 23.0	—10 12 6.48	—100.55	—27 18 54.6	9.999694
Brüssel (Alte Sternw.) Pass. Instr.	56	+50 51 10.7	— 0 17 28.71	— 2.87	+50 39 49.0	9.999126
Brüssel (Uccle) Mer.-Kr.	105	+50 47 54.6	— 0 17 26.05	— 2.86	+50 36 32.7	9.999131
Budapest Univ. Stw.	110	+47 29 34.7	— 1 16 15.4	— 12.53	+47 18 1.5	9.999215

[1]) Dudley Observatory, seit Juni 1893. Alte Sternwarte 37″.0 nördlich, 7ˢ.10 östlich. — [2]) Alte Sternwarte 3′.8 südlich, 8ˢ östlich. — [3]) Seit Oktober 1872, früher in Florenz. — [4]) 1927 geschlossen und nach Bloemfontein verlegt. — [5]) J. Comas Solá. — [6]) Die Koordinaten beziehen sich auf die Mitte der großen Kuppel, in der der große Refraktor aufgestellt ist. Die frühere Sternwarte in Berlin (seit 1835) lag 5′ 52″.5 nördlich und 1ᵐ 9ˢ.31 östlich. — [7]) Die alte Sternwarte lag 4ˢ.1 östlich, 34″.5 nördlich. — [8]) Herr von Bülow.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Budapest[1]	110	+47 28 49	−1 16 13.7	−12.53	+47 17 16	9.999215
Bukarest (Mil. Geogr. Inst.)	85	+44 24 34.2	−1 44 27.01	−17.16	+44 12 58.7	9.999292
Cambridge Engl. . .	28	+52 12 51.6	−0 0 22.75	− 0.06	+52 1 37.3	9.999090
Cambridge Mass.[2] .	24	+42 22 47.6	+4 44 31.05	+46.74	+42 11 15.1	9.999340
Cap d. gut. Hoffnung	10	−33 56 6.8	−1 13 54.73	−12.14	−33 45 23.2	9.999547
Catania	47	+37 30 13.3	−1 0 20.6	− 9.91	+37 19 1.9	9.999466
Charkow	139	+50 0 9.9	−2 24 55.72	−23.81	+49 48 44.4	9.999153
Charlottenburg, Techn. Hochsch.	60	+52 30 48.7	−0 53 20.5	− 8.76	+52 19 36.2	9.999085
Charlottesville[3] . .	259	+38 2 1.2	+5 14 5.33	+51.60	+37 50 46.5	9.999464
Christiania (Oslo) Mer.-Kr.	25	+59 54 43.7	−0 42 53.51	− 7.04	+59 44 39.2	9.998908
Cincinnati (Alte Stw.) .	—	+39 6 26.5	+5 37 59.09	+55.52	+38 55 6.0	9.999421
Cincinnati (Neue Stw.)[4]	247	+39 8 19.8	+5 37 41.40	+55.47	+38 56 59.1	9.999437
Cleveland (Case Obs.) .	215	+41 30 14.5	+5 26 25.86	+53.63	+41 18 44.3	9.999375
Coimbra	99	+40 12 24.5	+0 33 43.1	+ 5.54	+40 0 58.9	9.999400
Columbia Missouri[5] .	225	+38 56 12	+6 9 18.37	+60.67	+38 44 52.3	9.999442
Cordoba	434	−31 25 15.5	+4 16 48.22	+42.19	−31 14 57.5	9.999635
Danzig	3	+54 21 18.0	−1 14 39.6	−12.26	+54 10 18.4	9.999036
Denver[6]	1644	+39 40 36.4	+6 59 47.72	+68.96	+39 29 13.1	9.999519
Dorpat (Tartu, Jurjew) Mer.-Kr.	67	+58 22 47.2	−1 46 53.19	−17.56	+58 12 25.1	9.998946
Dresden (Geodät. Inst.)	168	+51 1 49.3	−0 54 55.1	− 9.02	+50 50 28.5	9.999130
Dresden (Mathem. Salon)	—	+51 3 14.7	−0 54 55.83	− 9.02	+50 51 54.0	9.999117
Dublin (Dunsink Obs.) .	86	+53 23 13.1	+0 25 21.1	+ 4.17	+53 12 6.4	9.999065
Düsseldorf (Bilk) . . .	46	+51 12 25.0	−0 27 2.69	− 4.44	+51 1 5.1	9.999117
Durham	108	+54 46 6.2	+0 6 19.75	+ 1.04	+54 35 9.8	9.999033
Edinburgh	146	+55 55 30	+0 12 44.1	+ 2.09	+55 44 43.5	9.999008
Edinburgh (Blackf. Hill)	134	+55 55 28.0	+0 12 44.0	+ 2.09	+55 44 41.5	9.999007
Evanston (Dearborn Obs.)	175	+42 3 33.4	+5 50 42.3	+57.61	+41 52 1.6	9.999358
Flagstaff (Lowell Obs.) .	2210	+35 12 30.5	+7 26 44.6	+73.39	+35 1 35.8	9.999667
Florenz (Alte Sternw.)[7]	73	+43 46 4.1	−0 44 59.6	− 7.39	+43 34 29.2	9.999308
Florenz (Mil. Geogr. Inst.)	72	+43 46 49.4	−0 45 2.5	− 7.40	+43 35 14.5	9.999308
Frankfurt a. M. . .	121	+50 7 0	−0 34 36.3	− 5.70	+49 55 34.6	9.999149
Genf Mer.-Kreis	406	+46 11 59.3	−0 24 36.53	− 4.04	+46 0 24.1	9.999269
Genua (Mar. Stw.) Mer.-Kr.	108	+44 25 8.1	−0 35 41.28	− 5.86	+44 13 32.6	9.999294
Georgetown D. C. . .	62	+38 54 26.2	+5 8 18.33	+50.65	+38 43 6.7	9.999430
Glasgow Schottl. . .	55	+55 52 42.1	+0 17 10.55	+ 2.82	+55 41 55.2	9.999003
Glasgow Missouri . .	228	+39 13 45.6	+6 11 18.06	+61.00	+39 2 24.5	9.999433

[1]) Observ. der Kgl. Josef-Technischen Hochschule. — [2]) Harvard College Observatory. — [3]) Leander Mc Cormick Observatory, University of Virginia. — [4]) Mount Lookout seit 1873. — [5]) Laws Observatory. — [6]) University Park, Chamberlin Observatory. — [7]) 1872 nach Arcetri verlegt.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Göttingen Mer.-Kreis	161	+51 31 48.2	−0 39 46.22	− 6.53	+51 20 30.0	9.999117
Gotha (Neue Stw.) Zentr. d. St.[1]	322	+50 56 37.9	−0 42 50.51	− 7.04	+50 45 16.7	9.999142
Graz	375	+47 4 37.2	−1 1 47.71	−10.15	+46 53 3.2	9.999244
Greenwich Transit Circle	47	+51 28 38.2	0 0 0.00	0.00	+51 17 19.7	9.999110
Groningen	4	+53 13 13.8	−0 26 15.11	− 4.31	+53 2 6.0	9.999064
Hamburg (Alt. Stw.) M.-Kr.[2]	25	+53 33 6.0	−0 39 53.60	− 6.55	+53 22 0.4	9.999057
Hamburg (D. Seewarte)	30	+53 32 51.8	−0 39 53.42	− 6.55	+53 21 46.2	9.999058
Hanover N. H.	183	+43 42 15.3	+4 49 8.00	+47.50	+43 30 40.5	9.999317
Haverford	116	+40 0 40.1	+5 1 12.7	+49.48	+39 49 15.4	9.999406
Heidelberg (Wolfs Stw.)	126	+49 24 35	−0 34 48.4	− 5.72	+49 13 7	9.999159
Heidelberg (Königst.) M.-Kr	570	+49 23 54.6	−0 34 53.13	− 5.73	+49 12 26.8	9.999198
Helsingfors Mer.-Kreis	33	+60 9 42.3	−1 39 49.10	−16.40	+59 59 40.8	9.998903
Helwan	115	+29 51 31.1	−2 5 21.77	−20.59	+29 41 31.4	9.999648
Hongkong	33	+22 18 13.2	−7 36 41.25	−75.02	+22 10 5.8	9.999793
Hyderabad-Deccan[3]	554	+17 25 54.3	−5 13 48.98	−51.55	+17 19 17.7	9.999907
Innsbruck	605	+47 16 7.7	−0 45 31.42	− 7.48	+47 4 34.0	9.999254
Jena (Univers.) Zentr. d. St.	164	+50 55 35.6	−0 46 20.22	− 7.61	+50 44 14.3	9.999131
Jena (Winkler)	174	+50 56 15.7	−0 46 20.73	− 7.61	+50 44 54.5	9.999132
Johannesburg	1786	−26 10 52.1	−1 52 17.9	−18.45	−26 1 42.0	9.999839
Johannesburg (Filiale des Yale Observ.)	1741	−26 11 14	−1 52 7	−18.42	−26 2 4	9.999836
Kairo	—	+30 4 38.2	−2 5 8.80	−20.56	+29 54 35.8	9.999635
Kalocsa[4]	102	+46 31 42.4	−1 15 54.34	−12.47	+46 20 7.6	9.999239
Karlsruhe[5]	110	+49 0 29.6	−0 33 35.40	− 5.52	+48 49 0.4	9.999177
Kasan (Univers.)	79	+55 47 24.3	−3 16 29.03	−32.28	+55 36 36.6	9.999007
Kasan (Engelhardt)	98	+55 50 20.5	−3 15 15.74	−32.08	+55 39 33.2	9.999007
Kew	10	+51 28 6	+0 1 15.1	+ 0.21	+51 16 47.5	9.999108
Kiel Neuer Mer.-Kreis	52	+54 20 27.6	−0 40 35.45	− 6.67	+54 9 27.9	9.999040
Kiel Alter Mer.-Kreis	47	+54 20 28.5	−0 40 35.57	− 6.67	+54 9 28.8	9.999040
Kiew Mer.-Kreis	184	+50 27 11.8	−2 2 0.56	−20.04	+50 15 48.3	9.999145
Kodaikanal	2343	+10 13 50	−5 9 52.0	−50.94	+10 9 47.6	0.000114
Königsberg Reps. M.-Kr.[6]	22	+54 42 50.6	−1 21 58.98	−13.47	+54 31 53.8	9.999029
Konstanz[7]	420	+47 39 43.6	−0 36 42.01	− 6.03	+47 28 10.7	9.999232
Kopenhagen (Neue Stw.)[8]	14	+55 41 12.6	−0 50 18.69	− 8.26	+55 30 24.0	9.999005
Kopenhagen (Urania-St.)	10	+55 41 19.2	−0 50 9.11	− 8.24	+55 30 30.6	9.999005
Krakau Mer.-Kreis	221	+50 3 51.9	−1 19 50.28	−13.11	+49 52 26.7	9.999158
Kremsmünster Mer.-Kr.	384	+48 3 23.1	−0 56 31.58	− 9.28	+47 51 51.1	9.999219

[1]) Seit 1857, früher Seeberg. — [2]) 1909 nach Bergedorf verlegt. — [3]) Nizamiah Observatory. — [4]) Erzbischöfl. Haynaldsche Sternwarte. — [5]) 1896 nach Heidelberg verlegt. — [6]) Nach 1898, vor 1898 $0^s.01$ westlich. — [7]) Privatsternwarte von E. Leiner. — [8]) Seit 1861 Nov. 11. Alte Sternwarte 20″.3 südlich, $0^s.03$ westlich.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Kyoto	55	+35 1 37.1	−9 3 6.70	−89.22	+34 50 43.9	9.999525
Landstuhl (Fauth)	385	+49 24 42.5	−0 30 16.35	− 4.97	+49 13 14.7	9.999185
La Plata Mer.-Kr. Gautier	17	−34 54 30.3	+3 51 43.74	+38.07	−34 43 38.1	9.999525
Leiden (Neue Stw.) Mer.-Kr.[1]	6	+52 9 19.8	−0 17 56.15	− 2.94	+51 58 5.2	9.999090
Leipzig (Neue Stw.) Zentr.[2]	119	+51 20 5.9	−0 49 33.93	− 8.14	+51 8 46.7	9.999119
Lembang (Bosscha St.)	1300	− 6 49 29.1	−7 10 27.81	−70.71	− 6 46 45.5	0.000068
Lemberg (Techn. Hochsch.) Pass. Instr.	340	+49 50 11.2	−1 36 3.40	−15.78	+49 38 45.0	9.999171
Leningrad (Petersburg) (Akad.)	20	+59 56 29.7	−2 1 13.35	−19.91	+59 46 25.5	9.998907
Leningrad (Petersburg) (Univers.)	4	+59 56 32.0	−2 1 11.3	−19.91	+59 46 27.8	9.998906
Lissabon (Tapada)	94	+38 42 30.5	+0 36 44.68	+ 6.04	+38 31 12.0	9.999437
Lissabon (Mar. Stw.)	—	+38 42 17.6	+0 36 33.6	+ 6.01	+38 30 59.2	9.999431
Liverpool (Neue Stw.)[3]	62	+53 24 4.8	+0 12 17.33	+ 2.02	+53 12 58.2	9.999063
Lourenço Marques	60	−25 58 5.5	−2 10 22.63	−21.42	−25 48 58.9	9.999725
Lübeck (Navig.-Sch.)	19	+53 51 31.1	−0 42 45.6	− 7.02	+53 40 27.8	9.999049
Lund Zentr. d. Stw.	34	+55 41 51.6	−0 52 44.97	− 8.66	+55 31 3.1	9.999006
Lüttich Ougrée	128	+50 37 6	−0 22 12	− 3.65	+50 25 43	9.999137
Lyon	299	+45 41 40.8	−0 19 8.5	− 3.14	+45 30 5.3	9.999274
Madison (Washburn Obs.)	292	+43 4 36.8	+5 57 37.90	+58.75	+42 53 2.9	9.999340
Madras	7	+13 4 8.0	−5 20 59.65	−52.73	+12 59 2.5	9.999926
Madrid Zentr. d. Stw.	656	+40 24 30.1	+0 14 45.09	+ 2.43	+40 13 3.7	9.999433
Mailand, Brera	120	+45 27 59.2	−0 36 45.89	− 6.04	+45 16 23.6	9.999268
Manila	3	+14 35 25	−8 3 50	−79.48	+14 29 47	9.999908
Mannheim Zentr. d. Stw.	98	+49 29 11.0	−0 33 50.42	− 5.56	+49 17 43.5	9.999164
Marburg	248	+50 48 46.9	−0 35 4.9	− 5.76	+50 37 25.0	9.999141
Mare Island Calif.	18	+38 5 55.8	+8 9 5.63	+80.35	+37 54 40.8	9.999447
Markree (Col. Cooper)	45	+54 10 31.7	+0 33 48.4	+ 5.56	+53 59 30.7	9.999043
Marseille (N. St.) M.-Kr.[4]	75	+43 18 19.1	−0 21 34.56	− 3.54	+43 6 44.8	9.999320
Melbourne	28	−37 49 53.4	−9 39 54.17	−95.26	−37 38 39.9	9.999454
Meudon	162	+48 48 18	−0 8 55.5	− 1.46	+48 36 48	9.999185
Mexico	2277	+19 26 1.3	+6 36 26.71	+65.13	+19 18 45.9	9.999995
Middletown, Conn.	70	+41 33 18	+4 50 38.2	+47.74	+41 21 47.6	9.999364
Mizusawa	61	+39 8 3.4	−9 24 31.46	−92.74	+38 56 42.7	9.999424
Modena	63	+44 38 52.8	−0 43 42.8	− 7.18	+44 27 17.2	9.999285
Montreal	57	+45 30 20	+4 54 18.63	+48.35	+45 18 44.4	9.999263
Mt. Hamilton (Lick) Mkr.	1283	+37 20 25.6	+8 6 34.86	+79.94	+37 9 15.2	9.999552
Mt. Wilson Calif.	1742	+34 12 59.5	+7 52 14.33	+77.57	+34 2 13.3	9.999659

[1]) Seit 1860. Alte Sternwarte 8″.0 nördlich, 0s.42 östlich. — [2]) Seit 1861. Alte Sternwarte 14″.2 nördlich, 4s.00 westlich. — [3]) Alte Sternwarte 44″.0 nördlich, 17s.1 östlich. — [4]) Seit 1866. Alte Sternwarte 30″.1 südlich, 6s.2 westlich; Seehöhe 29m.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Moskau Mer.-Kr. . . .	142	+55 45 19.5	−2 30 17.03	−24.69	+55 34 31.5	9.999012
Mundenheim[1]) . . .	—	+49 27 30	−0 33 44	− 5.54	+49 16 2	9.999158
München West-Kuppel	529	+48 8 45.5	−0 46 26.02	− 7.63	+47 57 13.8	9.999227
Münster	75	+51 57 45.8	−0 30 29.66	− 5.01	+51 46 30.0	9.999100
Nashville (Vanderbilt Obs.)	174	+36 8 58.2	+5 47 12.81	+57.04	+35 57 56.1	9.999506
Natal	79	−29 50 46.6	−2 4 1.18	−20.37	−29 40 47.0	9.999645
Neapel (Capo di M.) . .	154	+40 51 45.7	−0 57 1.40	− 9.37	+40 40 17.6	9.999387
Neuchâtel Refraktor .	488	+46 59 49.5	−0 27 49.57	− 4.57	+46 48 15.4	9.999254
New Haven (Neue Stw.)[2])	40	+41 19 22.3	+4 51 40.58	+47.92	+41 7 52.7	9.999368
New York (Rutherfurd)	—	+40 43 48.5	+4 55 56.66	+48.62	+40 32 20.9	9.999380
New York (Columb. Obs.)	—	+40 45 23.1	+4 55 53.73	+48.61	+40 33 55.4	9.999379
Nikolajew Mer.-Kr. . .	55	+46 58 19.3	−2 7 53.98	−21.01	+46 46 45.1	9.999225
Nizza Kl. Mer.-Kr.[3]) . .	378	+43 43 16.9	−0 29 12.15	− 4.79	+43 31 42.0	9.999330
Northfield (Goodsell Obs.)	290	+44 27 41.4	+6 12 35.94	+61.21	+44 16 5.9	9.999305
Oakland Californ. [4]) .	99	+37 47	+8 8 48	+80.30	+37 35 47	9.999460
Odessa (Univ.-Stw.) Mer.-Kr.	55	+46 28 36.2	−2 3 2.05	−20.21	+46 17 1.3	9.999237
Odessa (Filiale Pulkowa)	—	+46 28 36.0	−2 3 2.19	−20.21	+46 17 1.1	9.999234
Oslo (Christiania) Mer.-Kr.	25	+59 54 43.7	−0 42 53.51	− 7.04	+59 44 39.2	9.998908
Ottawa Mer.-Kr. . . .	85	+45 23 39.1	+5 2 51.98	+49.75	+45 12 3.5	9.999267
Oxford (Radcl. Obs.) . .	65	+51 45 33.9	+0 5 3.0	+ 0.83	+51 34 17.0	9.999104
Oxford (Univers.) . . .	64	+51 45 34.2	+0 5 0.4	+ 0.82	+51 34 17.3	9.999104
Oxford, Mississippi .	140	+34 22 12.6	+5 58 7.18	+58.83	+34 11 25.1	9.999546
Padua	38	+45 24 1.2	−0 47 29.15	− 7.80	+45 12 25.6	9.999263
Palermo	72	+38 6 44.0	−0 53 25.87	− 8.78	+37 55 28.9	9.999451
Paris (Obs. nat.) Mer. Cassini	59	+48 50 11.2	−0 9 20.93	− 1.53	+48 38 41.5	9.999177
Paris (Montsouris) westl. Mer.	—	+48 49 18.0	−0 9 20.6	− 1.53	+48 37 48.2	9.999174
Peking	—	+39 54 23.0	−7 45 52.87	−76.53	+39 42 58.7	9.999401
Perth West.-Austr. . .	60	−31 57 10.7	−7 43 21.62	−76.12	−31 46 46.9	9.999597
Petersburg (Leningrad) (Akademie) .	20	+59 56 29.7	−2 1 13.35	−19.91	+59 46 25.5	9.998907
Petersburg (Leningrad) (Univers.) .	4	+59 56 32.0	−2 1 11.3	−19.91	+59 46 27.8	9.998906
Philadelphia[5]) . . .	74	+39 58 2.1	+5 1 6.88	+49.47	+39 46 37.5	9.999404
Plonsk[6])	—	+52 37 40.0	−1 21 31.9	−13.39	+52 26 28.2	9.999078
Pola	32	+44 51 48.6	−0 55 23.07	− 9.10	+44 40 12.9	9.999277
Porto Alegre[7]) Mer.-Kr.	—	−30 1 51	+3 24 53.2	+33.66	−29 51 49	9.999636
Portsmouth	—	+50 48 3	+0 4 24.8	+ 0.73	+50 36 41	9.999124
Posen	85	+52 23 48.6	−1 7 30.60	−11.09	+52 12 35.4	9.999090

[1]) Dr. Max Mündler. — [2]) Yale University. Alte Sternwarte 45″.8 südlich, 1s.58 westlich. — [3]) Herr R. Bischofsheim. — [4]) Chabot Observatory. — [5]) Flower Obs. (Univ. of Pennsylvania). — [6]) Dr. Jedrzejewicz; 1898 nach Warschau verlegt. — [7]) Observatorio Regional do Rio Grande do Sul.

Koordinaten der Sternwarten

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Potsdam (Astrophys. Obs.)	97	+52 22 56.0	— 0 52 15.86	— 8.58	+52 11 42.7	9.999091
Potsdam (Geod.Inst.) Turm	99	+52 22 54.8	— 0 52 16.11	— 8.58	+52 11 41.5	9.999091
Poughkeepsie[1] . . .	61	+41 41 18	+ 4 55 33.6	+48.56	+41 29 47	9.999360
Prag (Univ.-Stw.) Turm .	197	+50 5 16.0	— 0 57 40.29	— 9.47	+49 53 50.9	9.999155
Prag (Safarik)	—	+50 4 24	— 0 57 48	— 9.49	+49 52 59	9.999142
Princeton N. J. (N. Stw.)[2]	75	+40 20 55.8	+ 4 58 39.44	+49.06	+40 9 29.7	9.999395
Providence[3]	171	+41 49 46.4	+ 4 45 37.64	+46.92	+41 38 15.2	9.999363
Pulkowa Zentr. d. Stw.	75	+59 46 18.5	— 2 1 18.57	—19.93	+59 36 12.3	9.998914
Quebec Canada . . .	90	+46 47 59.2	+ 4 44 52.71	+46.80	+46 36 24.8	9.999231
Quito	2846	— 0 14 0	+ 5 13 58.20	+51.58	— 0 13 54	0.000194
Riga (Polytechnikum) Turm	—	+56 57 7	— 1 36 28.11	—15.84	+56 46 30	9.998974
Rio de Janeiro . . .	63	—22 54 23.7	+ 2 52 41.52	+28.37	—22 46 6.0	9.999784
Rio de Janeiro (N. Stw.)	33	—22 53 41	+ 2 52 53.5	+28.40	—22 45 24	9.999782
Rom (Coll. Rom.) Mer.-Kr.	59	+41 53 53.6	— 0 49 55.36	— 8.19	+41 42 22.3	9.999354
Rom (Capitol). Mer.-Kr. .	65	+41 53 33.2	— 0 49 56.34	— 8.20	+41 42 1.9	9.999355
Rom (Vatican) Mer.-Kr. .	100	+41 54 12.4	— 0 49 48.26	— 8.18	+41 42 41.1	9.999357
Rousdon	157	+50 42 38	+ 0 11 58.9	+ 1.96	+50 31 16	9.999137
Rugby	119	+52 22 30	+ 0 5 2.0	+ 0.83	+52 11 16.7	9.999093
St. Louis Missouri .	—	+38 38 3.6	+ 6 0 49.15	+59.28	+38 26 45.5	9.999433
San Fernando . . .	30	+36 27 42.0	+ 0 24 49.30	+ 4.08	+36 16 37.7	9.999488
San Francisco[4] . .	—	+37 47 28.0	+ 8 9 42.81	+80.45	+37 36 14.8	9.999453
Santiago de Chile (N. St.)	580	—33 33 44.2	+ 4 42 46.0	+46.44	—33 23 4.1	9.999595
Santiago de Chile (A. St.)	619	—33 26 25.4	+ 4 42 36.9	+46.42	—33 15 46.4	9.999600
Sétif	1120	+36 11 10	— 0 21 38.6	— 3.55	+36 0 7.7	9.999569
Simeïs	360	+44 24 11.1	— 2 15 58.1	—22.34	+44 12 35.6	9.999312
Sonneberg (Hoffmeister)	405	+50 21 29.5	— 0 44 42.87	— 7.34	+50 10 5.5	9.999163
Sonneberg (Erbisbühl)	640	+50 22 41.4	— 0 44 46.19	— 7.36	+50 11 17.5	9.999178
South Hadley	76	+42 15 18.2	+ 4 50 19	+47.69	+42 3 45.9	9.999346
Stará Dala[5]	113	+47 52 27.3	— 1 12 45.49	—11.95	+47 40 54.9	9.999206
Stockholm Mer.-Kreis	44	+59 20 32.7	— 1 12 13.97	—11.86	+59 10 21.4	9.998922
Stonyhurst	116	+53 50 40.0	+ 0 9 52.7	+ 1.62	+53 39 36.5	9.999056
Straßburg (N.St.). M.-Kr.[6]	144	+48 35 0.4	— 0 31 4.53	— 5.10	+48 23 29.9	9.999190
Sydney	44	—33 51 41.1	—10 4 49.54	—99.36	—33 40 58.2	9.999551
Tacubaya[7]	2311	+19 24 17.9	+ 6 36 46.71	+65.18	+19 17 3.0	9.999997
Tartu (Dorpat, Jurjew) Mer.-Kr.	67	+58 22 47.2	— 1 46 53.19	—17.56	+58 12 25.1	9.998946
Taschkent	479	+41 19 36.7	— 4 37 10.57	—45.53	+41 8 7.1	9.999398

1) Vassar College. — 2) Alte Sternwarte 2″.0 nördlich, 1s.94 östlich; 65m. — 3) Seagrave. Ladd Observatory 35″ nördlich, 1s.57 östlich. — 4) Davidson Observatory. — 5) Früher O-Gyalla. — 6) Seit Anfang 1881. — 7) Seit März 1883, früher in Chapultepec.

Name	Seehöhe	Geogr. Breite	Länge von Greenwich + westlich	Korr. der Sternzeit	Geoz. Breite	Log. ρ incl. Seehöhe
	m	° ′ ″	h m s	s	° ′ ″	
Teramo (Cerulli)	398	+42 39 27	− 0 54 55.8	− 9.02	+42 27 54	9.999358
Tokio	59	+35 40 21.4	− 9 18 10.09	− 91.69	+35 29 23.0	9.999509
Toronto	116	+43 40 1.3	+ 5 17 34.67	+ 52.17	+43 28 26.5	9.999313
Tortosa (Ebro-Stw.) M.-Kr.	54	+40 49 14	− 0 1 58	− 0.32	+40 37 46	9.999382
Toulouse Mer.-Kr. . . .	195	+43 36 44.0	− 0 5 51.2	− 0.96	+43 25 9.3	9.999320
Triest	23	+45 38 45.4	− 0 55 2.90	− 9.04	+45 27 9.9	9.999256
Tsingtau (Met.-astr. Stat.) .	—	+36 4 11.3	− 8 1 16.21	− 79.06	+35 53 9.8	9.999496
Tucson Arizona (Steward Obs.) .	757	+32 13 59.4	+ 7 23 47.68	+ 72.90	+32 3 32.6	9.999638
Turin Mer.-Kr.	276	+45 4 7.9	− 0 30 47.15	− 5.06	+44 52 32.2	9.999288
Turin (Pino Torinese) . .	618	+45 2 16.3	− 0 31 5.95	− 5.11	+44 50 40.6	9.999312
Upsala (N.Stw.) Pass.-Instr.	21	+59 51 29.4	− 1 10 30.13	− 11.58	+59 41 24.2	9.998909
Urbana Jll.	236	+40 6 20.2	+ 5 52 53.90	+ 57.97	+39 54 55.1	9.999412
Utrecht	12	+52 5 9.5	− 0 20 31.6	− 3.37	+51 53 54.4	9.999093
Valkenburg (Ignatius Coll.)	100	+50 52 29.3	− 0 23 19.91	− 3.83	+50 41 7.8	9.999129
Venedig	15	+45 26 10.5	− 0 49 22.12	− 8.11	+45 14 34.9	9.999261
Victoria B. C. (Dominion Obs.)	229	+48 31 15.7	+ 8 13 40.17	+ 81.18	+48 19 45.0	9.999197
Warschau[1]) Zentr. d. Stw.	121	+52 13 4.6	− 1 24 7.25	− 13.82	+52 1 50.3	9.999096
Warschau[2])	—	+52 13 10	− 1 24 4.8	− 13.81	+52 1 56	9.999088
Washington (Alte Stw.) .	31	+38 53 38.9	+ 5 8 12.13	+ 50.63	+38 42 19.4	9.999428
Washington (Neue Stw.) .	82	+38 55 14.0	+ 5 8 15.78	+ 50.64	+38 43 54.4	9.999431
Washington (Kath.Univ.) .	—	+38 56 14.8	+ 5 8 0.0	+ 50.60	+38 44 55.1	9.999425
Wellington Transit Instr.[3])	127	−41 17 3.8	−11 39 4.27	−114.84	−41 5 34.3	9.999375
West Point N.Y. (N. Stw.)[4])	170	+41 23 22.1	+ 4 55 50.6	+ 48.60	+41 11 52.3	9.999375
Wien (Alte Sternw.)	167	+48 12 35.5	− 1 5 31.61	− 10.76	+48 1 3.9	9.999201
Wien (Josephstadt)[5]) . . .	214	+48 12 53.8	− 1 5 25.17	− 10.74	+48 1 22.2	9.999204
Wien (Neue Sternw.) Zentr. .	240	+48 13 55.3	− 1 5 21.35	− 10.73	+48 2 23.8	9.999205
Wien (Ottakring)[6])	285	+48 12 46.7	− 1 5 10.97	− 10.71	+48 1 15.1	9.999209
Wien (Mil. Geogr. Inst.) . .	211	+48 12 40.5	− 1 5 26.24	− 10.75	+48 1 8.9	9.999203
Wien (Techn. Hochschule) .	200	+48 11 58.3	− 1 5 29.76	− 10.76	+48 0 26.7	9.999204
Wilhelmshaven Mer.-Kr.	9	+53 31 52.1	− 0 32 35.15	− 5.35	+53 20 46.4	9.999057
Williams-Bay Wisc.[7]) .	334	+42 34 12.6	+ 5 54 13.24	+ 58.19	+42 22 39.6	9.999356
Williamstown Mass. . .	213	+42 42 49	+ 4 52 53.5	+ 48.12	+42 31 16	9.999344
Wilna Pass.-Instr.	122	+54 40 59.1	− 1 41 8.76	− 16.61	+54 30 2.1	9.999036
Windsor N. S. W.[8]) . .	16	−33 36 30.8	−10 3 20.77	− 99.11	−33 25 50.2	9.999556
Wolfersdorf	279	+50 47 20.0	− 0 46 50.94	− 7.70	+50 35 58.0	9.999143
Zô-sè China	100	+31 5 48.0	− 8 4 44.82	− 79.63	+30 55 33.6	9.999619
Zürich Meridian-Kreis . .	468	+47 22 38.3	− 0 34 12.3	− 5.62	+47 11 4.8	9.999242

[1]) Universitäts-Sternwarte. — [2]) Dr. Jedrzejewicz; seit 1898, früher in Plonsk. — [3]) Dominion Observatory. — [4]) Seit 1883. Alte Sternwarte 9″ nördlich, 1ˢ.2 östlich. — [5]) von Oppolzers Sternwarte. — [6]) v. Kuffner. — [7]) Yerkes Observatory. — [8]) J. Tebbutt. Neue Sternwarte, 0″.4 südlich von der alten.

Normalzeiten der wichtigeren Länder

a) An den Meridian von Greenwich angeschlossen

Normalzeit = Mittl. Ortszeit des Meridians	Bezeichnung	Staaten
östl. Gr.		
11h 30m	—	Neu Seeland
10 0	Ostaustralische Z.	Victoria, Neu Süd-Wales, Queensland, Tasmanien
9 30	—	Süd-Australien
9 0	—	Japan, Korea
8 0	Ostchinesische Küsten-Z.	Ostküste von China, West-Australien
7 0	Südchinesische Küsten-Z.	Südküste von China, Franz. Indochina
5 30	—	Indien, Ceylon
3 0	—	Europ. Rußland östl. von etwa 40° östl. Länge
2 30	—	Deutsch Ostafrika
2 0	Osteuropäische Z.	Finnland, Estland, Lettland, Europ. Rußland westl. von etwa 40° östl. Länge, Bulgarien, Rumänien, Griechenland, Türkei, Palästina, Ägypten, Süd-Afrika
1 0	Mitteleuropäische Z. (M. E. Z.)	Dänemark, Deutschland, Italien, Norwegen, Österreich, Ungarn, Schweden, Schweiz, Jugoslawien, Polen, Deutsch Südwest-Afrika
0h 0m	Westeuropäische Z. (Greenwich Z.)	Belgien, Frankreich, Großbritannien und Irland, Luxemburg, Portugal, Spanien, Gibraltar, Algerien
westl. Gr.		
3h 0m	—	Ost-Brasilien
4 0	Atlantic St. Time	Mittel-Brasilien, Argentinien, Uruguay, Canada (Küste)
4 30	—	Venezuela
5 0	Eastern St. Time	Canada (Quebec, Ontario bis 82° 30′ westl.), Vereinigte Staaten (Ost-Zone), Chile, Panama, Peru, West-Brasilien
6 0	Central St. Time	Zentral-Zone von Canada und Vereinigte Staaten, Ostmexico
7 0	Mountain St. Time	Gebirgszone von Canada und Vereinigte Staaten, Westmexico
8 0	Pacific St. Time	Vereinigte Staaten (Pacifische Küste), Britisch Kolumbien
10 30	—	Sandwich Inseln

b) Nicht an den Meridian von Greenwich angeschlossen

Staaten	Meridian	Längendifferenz gegen Greenwich
Columbien	Bogota	4h 56m 52.4s W.
Ecuador	Quito	5 14 6.7 W.
Niederlande	Amsterdam	0 19 30.5 O.

Besondere Erläuterungen zu den Angaben und zum Gebrauch des Jahrbuchs.

Das Jahrbuch gibt die Örter der *Wandelsterne* in geozentrischen und in heliozentrischen Koordinaten. Die Zeitpunkte, für die sie gelten, sind in Welt-Zeit ausgedrückt, wenn nicht ausdrücklich eine andere Zeit angegeben wird. **Welt-Zeit ist identisch mit Bürgerlicher Zeit Greenwich.** Der bürgerliche Tag beginnt um Mitternacht, die Welt-Zeit-Stunden sind von 0^h bis 24^h durchgezählt. Die Beziehung zu der bis zum Jahrgang 1924 (einschließlich) im Jahrbuch verwendeten Mittleren Zeit Greenwich besteht darin, daß der astronomische mittlere Tag erst am Mittag des bürgerlichen Tages, also 12^h nach dessen Anfang beginnt. Somit ist 1925 Jan. 1, 0^h Welt-Zeit gleich 1924 Dez. 31, 12^h Mittlere Zeit Greenwich.

Die Örter der *Fixsterne* sind gegeben als »Mittlere Sternörter«, bezogen auf das mittlere Äquinoktium des Jahresanfangs, und in Ephemeridenform als »Scheinbare Sternörter«, bezogen auf das instantane wahre Äquinoktium.

Zur Erläuterung ist im einzelnen folgendes zu bemerken:

Sonnenephemeride (S. 2—38).

Der erste Teil der Sonnenephemeride (S. 2—19) gibt auf den linken Seiten für 0^h Welt-Zeit an jedem Tage:

1) Die Zeitgleichung = Mittlere Zeit *minus* Wahre Zeit.

2) Die geozentrischen, äquatorialen Koordinaten α, δ des scheinbaren Sonnenorts, bezogen auf das jedesmalige wahre Äquinoktium, zugleich mit der ersten Differenzenreihe. Diese Angaben sind direkt mit den Beobachtungen vergleichbar. Die Nutationsglieder kurzer Periode sind, wie im Vorwort erwähnt, in den Koordinaten nicht enthalten.

3) Die halbe Durchgangsdauer (in Sternzeit) der Sonnenscheibe durch den Meridian.

4) Den geozentrischen Halbmesser der Sonnenscheibe, d. i. der Winkel, unter dem der Sonnenhalbmesser vom Erdmittelpunkt aus erscheint.

Die rechten Seiten geben:

1) Die Julianische Zeit, d. i. die Anzahl der seit Beginn der Julianischen Periode verflossenen mittleren Sonnentage.

2) Die Sternzeit für 0^h Welt-Zeit. In ihr sind, wie im Vorwort erwähnt, nur die langperiodischen Glieder der Nutation enthalten.

Um für einen anderen Erdort der westlichen Längendifferenz $\Delta\lambda$ (in Stunden) gegen Greenwich die Sternzeit in seiner mittleren Mitternacht zu erhalten, ist zu diesen Angaben zuzulegen: $9^s.8565\,\Delta\lambda$. Diese Werte finden sich unter der Überschrift: »Korr. der Sternzeit« im Verzeichnis der Sternwarten.

3) Die Nutation in Rektaszension getrennt nach langperiodischen und kurzperiodischen Gliedern.

4) Die geozentrischen ekliptikalen Koordinaten λ, β der Sonne, bezogen auf das mittlere Äquinoktium des Jahresanfangs, sowie log R, den Logarithmus der Entfernung R der Erde von der Sonne. Diese Angaben finden bei Bahnberechnungen u. dergl. Verwendung.

5) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs der Sonne für einen Ort des Nullmeridians in $+50°$ Breite; sie sind mit der Horizontalrefraktion $34'$ berechnet und gelten für den oberen Rand der Sonne. Um daraus für einen beliebigen anderen Ort zwischen $+30°$ und $+60°$ geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 334*, 335* zu benutzen.

Auf S. 20—37 folgen, bezogen auf das mittlere Äquinoktium des Jahresanfangs, die rechtwinkligen geozentrischen äquatorialen Sonnenkoordinaten für 0^h und 12^h Welt-Zeit mit ihren ersten Differenzen. Am Fuß der Seite 37 finden sich die Zeiten für die Anfänge der Jahreszeiten und für die Erdnähe und Erdferne der Sonne.

Die Seite 38 enthält die Aberration, Parallaxe, mittlere Länge $L_\odot$ und mittlere Anomalie $M_\odot$ der Sonne im Intervall von je 10 Tagen.

Mondephemeride (S. 39—57).

Seite 39 enthält die Zeitangaben für die Phasen und die Erdnähe und Erdferne des Mondes.

Die Mondephemeride (S. 40—57) gibt auf den linken Seiten für 0^h Welt-Zeit:

1) Die scheinbare Rektaszension und Deklination des Mondmittelpunktes mit den ersten Differenzen.

2) Die Äquatorial-Horizontalparallaxe $p_☾$ des Mondes.

3) Den geozentrischen Mondhalbmesser $r_☾$, d. i. der Winkel, unter dem der Mondhalbmesser vom Erdmittelpunkt aus erscheint.

4) Die Länge und Breite des Mondes, abgekürzt auf $0°.001$.

Die rechten Seiten enthalten:

1) Für den oberen Durchgang des Mondes durch den Meridian von Greenwich die genäherten Angaben für die Rektaszension, Deklination und Parallaxe des Mondmittelpunktes, sowie die bürgerliche Greenwicher Zeit dieses Durchgangs, nebst den Änderungen für 1^h westlicher Längendifferenz.

2) Die bürgerlichen Ortszeiten des Aufgangs und Untergangs des Mondes für einen Ort des Nullmeridians in $+50°$ Breite nebst Änderung

für 1^h westlicher Längendifferenz; sie sind mit der Horizontalrefraktion 34′ berechnet und gelten für den oberen Rand des Mondes. Um daraus für einen beliebigen anderen Ort zwischen $+30°$ und $+60°$ geographischer Breite die entsprechenden Angaben zu erhalten, ist die Tabelle S. 336*, 337* zu benutzen.

Ephemeriden der Großen Planeten
(S. 58—112).

Die geozentrischen Örter der Planeten sind für Merkur, Venus, Mars, Jupiter, Saturn von Tag zu Tag, für Uranus und Neptun von 4 zu 4 Tagen für 0^h Welt-Zeit mit ihren ersten Differenzen gegeben, und zwar in scheinbaren, auf das momentane wahre Äquinoktium bezogenen Koordinaten. Die letzte Spalte gibt die bürgerliche Zeit (Greenwich) der oberen Kulmination in Greenwich.

Für die Reduktion und die Vergleichung der Planetenbeobachtungen mit der Ephemeride ist die Kenntnis der scheinbaren Halbmesser erforderlich. Man kann für dieselben in der Einheit der Entfernung annehmen:

				″		″
für Merkur	Halbmesser	. . . . .	3.34			
» Venus	»	. . . . .	8.78			
» Mars	»	. . . . .	4.68			
» Jupiter	»	(Äquatorial)	99.8,	(Polar)	92.6
» Saturn	»	(Äquatorial)	81.4,	(Polar)	73.4
» Uranus	»	. . . . .	34.7			
» Neptun	»	. . . . .	45			

Die heliozentrischen Ephemeriden der Planeten (S. 109—112) geben den Log. des Radiusvector, die Länge, deren Reduktion auf die Bahn und die Breite bezogen auf das mittlere Äquinoktium 1925.0.

☊ und *i* stellen die Bahnlage für die Epoche 1925.0 und das Normaläquinoktium 1925.0 dar.

Die Genauigkeit und Ausführlichkeit dieser heliozentrischen Angaben sind ihrem Hauptzweck, zur Berechnung der speziellen Störungen zu dienen, angepaßt.

Die beigefügten Werte der Planetenmassen sind die den Tafeln von Newcomb und von Hill zugrunde liegenden. Für die Erde ist noch besonders zu erwähnen, daß die Masse von »Erde + Mond« gegeben ist, Radiusvector und heliozentrische Länge sich auf den Schwerpunkt des Systems »Erde + Mond« beziehen.

Mittlere Örter von 925 Fixsternen (S. 2*—25*).

Die mittleren Örter der 925 Fixsterne sind aus den Daten der Veröffentlichung Nr. 33 des *Königlichen Astronomischen Rechen-Instituts* mit den daselbst angegebenen Hilfsgrößen für Präzession und Eigenbewegung abgeleitet worden. Nur die mittleren Örter der 20 Polsterne sind durch numerische Integration berechnet.

Ein * vor dem Namen weist auf eine Anmerkung am Fuß der Seite hin.

Unter Gr. stehen die visuellen Größen, welche aus der »Revised Harvard Photometry« in »Harvard Annals, vol. 50« entnommen sind, sofern nichts Anderes bemerkt ist. Wo für einen Stern zwei Größen gegeben sind, beziehen sich diese auf die Komponenten eines Doppelsterns. Die in den Anmerkungen gegebenen Größen für Doppelsternkomponenten und für die Extrema der Veränderlichen sind dem »Henry Draper Catalogue« entnommen.

Die Spektren sind aus dem Draper Katalog übernommen worden. Zusammengesetzte Spektren sind durch + gekennzeichnet. In anderen Fällen beziehen sich, wo 2 Spektren gegeben sind, diese auf die Komponenten eines Doppelsterns.

Scheinbare Örter von 579 Fixsternen (S. 26*—235*).

Die scheinbaren Rektaszensionen und Deklinationen der Fixsterne sind für den Moment der oberen Kulmination im Meridian von Greenwich gegeben.

Die Ephemeriden der 555 Sterne mit Deklinationen kleiner als 80°, deren scheinbare Örter von 10 zu 10 Sterntagen gegeben sind, enthalten die kurzperiodischen Mondglieder der Nutation nicht. Das Datum des Tages, an welchem zwei Kulminationen stattfinden, ist in kleinem Druck vor der Rektaszensionsspalte angeführt.

Die jährliche Parallaxe ist bei folgenden Sternen berücksichtigt, bei denen sie 0″.20 übersteigt und hinreichend verbürgt erscheint, nämlich:

Nr. 59	τ Ceti	mit 0″.31		Nr. 538	α Centauri	mit 0″.75
Nr. 127	ε Eridani	» 0.32		Nr. 745	α Aquilae	» 0.23
Nr. 257	α Can. maj.	» 0.38		Nr. 793	61 Cygni	» 0.30
Nr. 291	α Can. min.	» 0.33				

Von den im B. J. nicht mit Ephemeriden versehenen Sternen des N. F. K. besitzt noch Nr. 825, ε Indi, eine Parallaxe von 0″.25.

Die Ephemeriden der auf S. 2*—24* eingeklammerten Sterne findet man im Almanaque Nautico.

Es folgen die scheinbaren Örter von 20 Polsternen für jede obere Kulmination. Sie enthalten die kurzperiodischen Mondglieder nicht, jedoch sind deren Werte in besonderen Spalten gegeben.

Am Fuße der Ephemeriden ist der mittlere Ort eines jeden Sternes für den Anfang des Jahres und die Werte von sec δ und tg δ angegeben, welche bei der Reduktion der Meridianbeobachtungen nach der hierfür am zweckmäßigsten erscheinenden Besselschen Formel gebraucht werden. Ferner sind hier die Größen a, b, a', b' enthalten, mit deren Hilfe die Nutationsglieder kurzer Periode leicht berechnet werden können. Man erhält $A'a + B'b$ in Zeitsekunden, $A'a' + B'b'$ in Bogensekunden.

Auf den Seiten 226*—235* sind die scheinbaren, rechtwinkligen Koordinaten von vier polnahen Sternen gegeben. Sie beziehen sich auf ein Koordinatensystem, dessen positive x-Achse nach dem Frühlingspunkt und dessen positive y-Achse nach dem Punkt $\alpha = 6^h$, $\delta = 0°$ gerichtet ist. Der Zusammenhang zwischen x, y und α, δ ist gegeben durch die Beziehungen: $x = \cos\delta \cos\alpha$, $y = \cos\delta \sin\alpha$. Die Angaben gelten für 12^h Sternzeit Greenwich und enthalten die kurzperiodischen Mondglieder der Nutation nicht, deren Werte jedoch in der letzten Spalte einer jeden Seite unter der Überschrift »Kurzperiod. Mondgl.« gegeben sind.

Als Quellen für die Koordinaten und Eigenbewegungen dieser vier Sterne sind benutzt worden:

für BD + 89° 1: L. Courvoisier: Beobachtungen des Sterns BD 89° 1 am großen Meridiankreis der Berliner Sternwarte. Astron. Nachr. Bd. **200**, 243,

für BD + 89° 3: L. Courvoisier: Ephemeriden der Polsterne BD 89° 3 und BD 89° 37 für 1923. Astron. Nachr. Bd. **217**, 319,

für BD + 89° 37: L. Courvoisier: Neue Position und Eigenbewegung des Polsterns BD + 89° 37. Astron. Nachr. Bd. **230**, 71,

für CPD — 89° 38: Cape Annals Bd. **XI**, II, 244 für den Ort und eine briefliche Mitteilung für die Eigenbewegung.

Mit den an diesen Stellen gegebenen Werten findet man folgende mittleren Örter für 1931.0:

Name	Gr.	x	Jährliche Veränd. 1931.5	Jährliche Eigenbw.	y	Jährliche Veränd. 1931.5	Jährliche Eigenbw.
	M	"	"	"	"	"	"
BD+89° 1	10.56	− 99.12	−20.086	−0.024	+ 79.29	−0.032	−0.008
BD+89° 3	9.06	+101.98	−20.240	−0.003	+863.59	+0.015	−0.006
BD+89° 37	10.06	−881.77	−19.979	−0.011	−343.41	−0.184	+0.015
CPD−89° 38	9.5	−207.47	+20.140	+0.027	−307.47	−0.013	+0.031

Reduktionsgrößen (S. 236*—276*).

Auf die scheinbaren Örter der Sterne folgt S. 236* eine Zusammenstellung der Werte, mit welchen die Reduktionsgrößen der darauf folgenden Tafeln berechnet sind, und der Formeln für die Reduktion auf den scheinbaren Ort.

Die Größen zur »Reduktion auf den scheinbaren Ort« sind in ihrer *ersten* Form: A, B, C, D, E; A', B' gegeben für 12^h Sternzeit des Meridians von Greenwich:

1) Auf S. 237* im Intervall von 10 Sterntagen.

Diese Tafel soll zur Berechnung von Sternephemeriden für die Epochen der Meridiandurchgänge dienen. Wegen ihrer logarithmischen Form und des großen Intervalls ist die Tafel zur Interpolation nicht geeignet. Man wird deshalb zweckmäßig die Interpolation erst nach

der Summierung der einzelnen unmittelbar für die Epochen der Tafel berechneten Glieder vornehmen.

2) Auf S. 256*—264* für jeden Sterntag. Hier sind die numerischen Werte von A, B, C und D mit ihren Differenzen gegeben und die kurzperiodischen Mondglieder A' und B' mit angeführt.

Beiden Tafeln ist in einer Spalte die dem festen Sternzeitmoment jedesmal entsprechende Welt-Zeit vorangestellt; man wird hiernach auf jeden beliebigen Zeitpunkt, gegeben durch Datum, Sternzeit und Längendifferenz gegen Greenwich, übergehen können. Eine weitere Spalte gibt die seit Beginn des annus fictus verflossene Zeit in Bruchteilen des tropischen Jahres.

Die Reduktionsgrößen der *zweiten* Form: f, $\log g$, G, $\log h$, H, $\log i$ und i, sowie f', g' und G' sind S. 238*—255* von Tag zu Tag für 0^h Welt-Zeit gegeben.

Auch hier findet sich eine Spalte, t überschrieben, welche die seit Beginn des annus fictus verflossene Zeit in Bruchteilen des tropischen Jahres gibt. Ferner ist die Sternzeit Greenwich für 0^h Welt-Zeit gegeben.

Die Seiten mit ungerader Seitenzahl enthalten außer den schon erwähnten f', g', G' noch folgende Größen:

a) ψ = Allgemeine Präzession seit Jahresanfang.
b) $\Delta\psi$ = Langperiodische Glieder der Nutation in Länge.
c) $\Delta\psi'$ = Kurzperiodische Glieder der Nutation in Länge.
d) ε = Wahre Schiefe der Ekliptik.
e) $\Delta\varepsilon$ = Langperiodische Glieder der Nutation in Schiefe.
f) $\Delta\varepsilon'$ = Kurzperiodische Glieder der Nutation in Schiefe.
g) Die Koeffizienten j und k, welche in den Formeln auf S. 267* vorkommen.

Die mittlere Schiefe der Epoche erhält man durch Subtraktion der Gesamtnutation $(\Delta\varepsilon + \Delta\varepsilon')$ von der wahren Schiefe.

Auf S. 265* findet sich eine Tafel der Hilfsgrößen zur Berechnung der Präzession von verschiedenen mittleren Äquinoktien bis 1931.0.

S. 266* enthält eine Tafel der Hilfsgrößen zur Übertragung der Polsternörter von verschiedenen mittleren Äquinoktien auf das mittlere Äquinoktium 1931.0.

Auf S. 267* sind die Formeln zusammengestellt, mit welchen bei Anschlußbeobachtungen die gemessene scheinbare Rektaszensions- und Deklinationsdifferenz in die mittlere, für den Jahresanfang geltende, übergeführt wird. Die in diesen Formeln auftretenden Koeffizienten j und k sind auf den Seiten 239*—255* enthalten und haben die Bedeutung

$$j = 15\,g \text{ arc } 1'$$
$$k = 15\,h \text{ arc } 1',$$

wobei g und h die auf den Seiten 238*—254* gegebenen Reduktionsgrößen sind.

S. 268* enthält eine Zusammenstellung der von der Deklination abhängenden Faktoren der Formeln auf S. 267*.

S. 269* enthält eine Tafel der numerischen Werte der Funktionen Sinus und Cosinus für in Zeit ausgedrückte Winkel. Ihre Benutzung erleichtert die Berechnung der Formeln auf S. 267*.

Die Seite 270* enthält eine Tafel zur Übertragung von Rektaszensions- und Deklinationsdifferenzen vom mittleren Äquinoktium 1931.0 auf das Normaläquinoktium 1925.0. Man findet die auf das Normaläquinoktium 1925.0 bezogene Koordinatendifferenz, indem man an der auf das mittlere Äquinoktium 1931.0 bezogenen Rektaszensionsdifferenz die differentielle Präzession Δp_α^s und an der Deklinationsdifferenz die differentielle Präzession $\Delta p_\delta''$ anbringt:

$$\Delta p_\alpha^s = a_1 \operatorname{tg}\delta \cdot \Delta\alpha^m + a_2 \frac{1}{15} \sec^2\delta \cdot \Delta\delta',$$
$$\Delta p_\delta'' = d_1 \cdot \Delta\alpha^m.$$

Die Koeffizienten a_1, a_2 und d_1 sind in der Tafel auf S. 270* enthalten und haben die Bedeutung

$$a_1 = (n) \text{ arc } 1' \cos\alpha$$
$$a_2 = (n) \text{ arc } 1' \sin\alpha$$
$$d_1 = -15\,(n) \text{ arc } 1' \sin\alpha.$$

$\Delta\alpha^m$ und $\Delta\delta'$ sind die auf das mittlere Äquinoktium 1931.0 bezogenen Rektaszensions- und Deklinationsdifferenzen in Zeit- bez. Bogenminuten. Nach den angegebenen Formeln findet man die differentielle Präzession für Rektaszension in Zeitsekunden, diejenige für Deklination in Bogensekunden.

Die auf den Seiten 271*—272* gegebenen Größen f, $\log g$ und G dienen zur Übertragung der Örter von dem *mittleren* Normaläquinoktium 1925.0 auf das jedesmalige *wahre* Äquinoktium. Die Berücksichtigung des Einflusses der Variatio saecularis bei dieser Übertragung ist durch die Tafel auf S. 273* gegeben. Diese enthält in der ersten Reihe einer jeden Vertikalspalte die Werte von 0.180 × Var. saec. für die mit den Argumenten α und δ gegebenen Örter. Die an zweiter Stelle stehenden Zahlen einer jeden Vertikalspalte sind die einjährigen Änderungen von 0.180 × Var. saec. und sind, wenn erforderlich, bei der Entnahme des Einflusses der Variatio saecularis für den in Frage kommenden Bruchteil des Jahres zu berücksichtigen.

Eine Tafel zur Übertragung von Sternörtern vom mittleren Äquinoktium 1931.0 auf das Normaläquinoktium 1925.0 befindet sich auf den Seiten 274*—276*.

Die hier tabulierten Größen sind gerechnet nach den Formeln:

$$A = (m) + \frac{v^2}{4} \sin 2a$$
$$A_1 = v \sin a$$
$$A_2 = \frac{v^2}{2} \sin 2a$$
$$D = v \cos a$$
$$D_1 = -\frac{v^2}{2} \sin^2 a,$$

wobei $\nu = \sin(n)$, $a = \alpha_{1931.0} + 90° - (N)$. Betreffs der Größen (m), (n) und $90° - (N)$ vgl. S. 266*.

Sonnen- und Mondfinsternisse (S. 278*—284*).

Die bei den Sonnenfinsternissen gegebenen Besselschen Elemente dienen in der folgenden Weise zur Vorausberechnung der Phasenzeiten und der Positionswinkel der Kontakte:

Mit einer Ausgangszeit T (siehe weiter unten) entnimmt man der Elemententabelle die Werte:

x, y, $\log \sin d$, $\log \cos d$, μ, l ($l^{(a)}$ für äußere, $l^{(i)}$ für innere Berührung), $\log \operatorname{tang} f$ ($f^{(a)}$ für äußere, $f^{(i)}$ für innere Berührung), x' und y'.

Mit ihnen rechnet man das folgende Formelsystem durch:

$$(1) \quad \left\{ \begin{aligned} \xi &= c \cos \varphi \sin(\mu - \lambda) \\ \eta &= s \sin \varphi \cos d - c \cos \varphi \sin d \cos(\mu - \lambda) \\ \zeta &= s \sin \varphi \sin d + c \cos \varphi \cos d \cos(\mu - \lambda) \\ \xi' &= [7.6398 - 10]\, c \cos \varphi \cos(\mu - \lambda) \\ \eta' &= [7.6398 - 10]\, \xi \sin d, \end{aligned} \right.$$

worin φ die geographische Breite, λ die westliche Länge (von Greenwich) des Beobachtungsortes bezeichnen, s und c aus der Tafel auf S. 348* zu entnehmen sind.

Alsdann:

$$(2) \quad \left\{ \begin{aligned} m \sin M &= x - \xi \\ m \cos M &= y - \eta \\ n \sin N &= x' - \xi' \\ n \cos N &= y' - \eta' \end{aligned} \right. \quad \begin{aligned} &\} \; m > 0 \\ &\} \; n > 0 \end{aligned}$$

Nun berechnet man aus:

$$(3) \quad L = l - \zeta \operatorname{tang} f$$

$L^{(a)}$ mit $l^{(a)}$ und $f^{(a)}$, $L^{(i)}$ mit $l^{(i)}$ und $f^{(i)}$; dann aus:

$$(4) \quad \sin \psi = \frac{m \sin(M - N)}{L} \; {}^{1)}$$

mit $L^{(a)}$ und $L^{(i)}$ je zwei Werte $\psi^{(a_1)}$, $\psi^{(a_2)}$ und $\psi^{(i_1)}$, $\psi^{(i_2)}$, von denen der eine zum Eintritt der Erde in den Halb- oder Kernschatten-Kegel, der andere zu ihrem Austritt aus ihm gehört. Diesen vier Werten $\psi^{(a_1)}$, $\psi^{(a_2)}$ und $\psi^{(i_1)}$, $\psi^{(i_2)}$ entsprechen vier Werte $\tau^{(a_1)}$, $\tau^{(a_2)}$ und $\tau^{(i_1)}$, $\tau^{(i_2)}$ (in Zeitminuten) nach

$$(5) \quad \tau = -\frac{m \cos(M - N)}{n} + \frac{L \cos \psi}{n},$$

---

[1]) Wird der Winkel ψ bei der ersten Näherungsrechnung imaginär, so rechne man τ unter der Annahme $\psi = 90°$ aus $\tau = -\frac{m \cos(M - N)}{n}$; bleibt ψ auch in der weiteren Rechnung imaginär, so deutet dies an, daß an dem betreffenden Orte keine Sonnenfinsternis stattfindet.

um welche die Ausgangszeit T zu verbessern ist, um die Zeit der gesuchten Phase zu erhalten. Ist T die gesuchte Phasenzeit, so wird $\tau = 0$ werden. Man muß daher das Formelsystem (1) bis (5) mit steigenden Näherungen solange durchrechnen, bis dieser Fall eintritt, d. h. bis das Formelsystem sich schließt. Zu diesem Zweck beginnt man mit einem Näherungswert T_1, für den man, wenn kein besserer bekannt sein sollte, eine beliebige Zeit nahe der Mitte der Finsternis nehmen mag, und rechnet die erste genäherte Korrektion τ_1; dann wiederholt man die Rechnung mit $T_2 = T_1 + \tau_1$, dann mit $T_3 = T_2 + \tau_2 = T_1 + \tau_1 + \tau_2$ u. s. f. bis $\tau_n = 0$ sich ergibt. T_n ist dann die gesuchte Welt-Zeit des Kontaktes, die durch Hinzufügung der Längendifferenz in mittlere Ortszeit zu verwandeln ist. Die Rechnung ist für jede Berührung gesondert durchzuführen.

Die Positionswinkel der einzelnen Phasen, in üblicher Weise vom Punkt größter Deklination nach Osten gezählt, folgen aus den Werten der letzten Näherung (Größen mit dem Index n) nach

$$P = N + \psi.$$

Will man den Winkelabstand Q vom Punkte der größten Höhe haben, so hat man von P noch den parallaktischen Winkel γ abzuziehen, der aus

$$\left.\begin{aligned} p \sin \gamma &= \xi \\ p \cos \gamma &= \eta \end{aligned}\right\} \; p > 0$$

folgt, also

$$Q = P - \gamma.$$

Um die Zeit der größten Phase, T_{max}, zu erhalten, hat man die beiden Formelsysteme (1) und (2) mit einem Näherungswerte $\overline{T}_1$ durchzurechnen, daraus $\overline{T}_2 = \overline{T}_1 - \frac{m \cos (M - N)}{n}$ zu entnehmen und die Rechnung solange fortzusetzen, bis die Korrektion der Ausgangszeit 0 wird. Als Näherungswert $\overline{T}_1$ wählt man zweckmäßig das Mittel der beiden Werte von T_2 für die Berührungszeiten.

Die Größe der Verfinsterung i, in Teilen des Sonnendurchmessers ausgedrückt, ergibt sich dann aus:

$$i = \frac{L^{(a)} - m}{2\, L^{(a)} - 0.5450},$$

worin $L^{(a)}$ und m die zur Zeit T_{max} gehörigen Werte bedeuten.

Sternbedeckungen (S. 285*—291*)

Die Seiten 285*—288* enthalten die Elemente von Stern- und Planetenbedeckungen durch den Mond, welche in dem Gebiet zwischen den Meridianen 0^h und 2^h östliche Länge von Greenwich und den Breitenkreisen $+45^\circ$ und $+55^\circ$ sichtbar sind. Die Auswahl ist auf Sterne bis zur Größe $6^m.0$ beschränkt.

Mit den in der Zusammenstellung der Elemente gegebenen Werten geschieht die Berechnung der Berührungszeiten eines Sternes mit dem Mondrand für einen Ort mit den geographischen Koordinaten φ und λ (λ positiv, wenn westlich von Greenwich) auf folgende Weise:

Aus der auf den Seiten 285*—288* enthaltenen Welt-Zeit T der geozentrischen Konjunktion von Mond und Stern findet man die Welt-Zeit $T+t$ der topozentrischen Konjunktion durch Berechnung der Größen:

$$h_0 = H - \lambda$$

$$\xi_0 = c \cos\varphi \sin h_0 \qquad \text{(c und später s aus der Tafel auf S. 348*)}$$

$$\xi' = [9.4192-10]\, c \cos\varphi \cos\frac{4}{3} h_0$$

$$t = \frac{\xi_0}{x' - \xi'}$$

t ergibt sich in Stunden mittlerer Zeit. Das Vorzeichen entspricht dem von h_0.

Für die Zeit $T+t$ berechne man die folgenden Größen, in denen $t_0 = 1.0027\, t$ ist.

$$\xi = c \cos\varphi \sin (h_0 + t_0)$$

$$\eta = s \sin\varphi \cos\delta - c \cos\varphi \sin\delta \cos (h_0 + t_0) = \eta_1 - \eta_2$$

$$\xi' = [9.4192-10]\, c \cos\varphi \cos (h_0 + t_0)$$

$$\eta' = [9.4192-10]\, \xi \sin\delta$$

$$x = x' t$$

$$y = Y + y' t$$

Aus den Beziehungen:

$$\left.\begin{array}{l} m \sin M = x - \xi \\ m \cos M = y - \eta \end{array}\right\} m > 0$$

$$\left.\begin{array}{l} n \sin N = x' - \xi' \\ n \cos N = y' - \eta' \end{array}\right\} n > 0$$

$$\sin\psi \quad = [0.5646]\, m \sin (M - N),$$

ψ zwischen $+90°$ und $-90°$, berechne man

$$\tau = -\frac{[1.7782]\, m}{n} \cos (M-N) \mp \frac{[1.2135]}{n} \cos\psi$$

$$d\tau = \frac{[6.7591-10]\,\tau^2}{n \cos\psi} [\eta_2 \cos (N \mp \psi) - \xi \sin (N \mp \psi)],$$

wobei die oberen Vorzeichen für den Eintritt, die unteren für den Austritt gelten. Die eingeklammerten Zahlen bedeuten Logarithmen. τ und $d\tau$ ergeben sich in Zeitminuten. Werden die für den Eintritt geltenden Werte mit τ' und $d\tau'$ bezeichnet, die für den Austritt geltenden mit τ'' und $d\tau''$, so ist die Welt-Zeit des

$$\text{Eintritts} = T + t + \tau' + d\tau'$$

$$\text{Austritts} = T + t + \tau'' + d\tau''.$$

Als Kontrolle berechne man die Werte von x, y, ξ, η für die so gefundenen Berührungszeiten. Sind diese richtig, so muß die Beziehung erfüllt sein:

$$\sqrt{(x-\xi)^2 + (y-\eta)^2} = 0.2725$$

Ist $m \sin(M-N) > 0.2725$, so tritt für den betreffenden Beobachtungsort keine Bedeckung des Sternes ein.

Die Positionswinkel des Sternes inbezug auf den Mondmittelpunkt für die Zeiten des Ein- und Austritts folgen aus

$$P_E = N - \psi - dP \text{ für den Eintritt,}$$

$$P_A = N + \psi + dP \pm 180^\circ \text{ für den Austritt,}$$

wobei die Winkel $N-\psi$ und $N+\psi$ aus der Rechnung für $d\tau$ entnommen werden können, und dP in Graden ausgedrückt aus

$$dP = \frac{[7.3038-10]\,\tau^2}{\cos\psi}(\eta_2 \sin N + \xi \cos N)$$

folgt.

Auf den Seiten 289*—291* sind Angaben über die Sternbedeckungen enthalten, die in Berlin-Babelsberg, Königsberg und München sichtbar sind. Außer der genäherten Welt-Zeit des Ein- und Austrittes ist unter P der Positionswinkel des Sterns für die Zeiten der Berührung mit dem Mondrande angeführt.

Die Größen a und b dienen zur Berechnung der genäherten Ein- und Austrittszeiten für andere als die drei angeführten Orte. Sind λ_0 und φ_0 die geographische Länge und Breite von Berlin-Babelsbeg, Königsberg oder München, λ und φ die Koordinaten irgend eines anderen Ortes innerhalb Deutschlands, so wird für diesen letzteren die Zeit der Berührung des Sterns mit dem Mondrande, wenn man z. B. von den für Berlin-Babelsberg geltenden Angaben ausgeht, gleich der Zeit der Berührung für Berlin-Babelsberg $+ a(\lambda-\lambda_0) + b(\varphi-\varphi_0)$, wobei $\lambda-\lambda_0$ und $\varphi-\varphi_0$ in Einheiten des Grades unter Mitnahme der Zehntelgrade zu verwenden sind, und die Korrektion $a(\lambda-\lambda_0) + b(\varphi-\varphi_0)$ sich in Zeitminuten ergibt.

Die Vorausberechnungen der Sternbedeckungen für Berlin-Babelsberg, Königsberg und München sind von den Herren T. Whitwell und W. A. Forster ausgeführt und von dem Nautical Almanac Office, London, zur Verfügung gestellt worden.

Mondbewegung und Lage des Mondäquators gegen den Erdäquator (S. 292*).

Auf S. 292* finden sich:

- ☊, Aufsteigender Knoten der Mondbahn auf der Ekliptik
- $L_☾$, Mittlere Länge des Mondes
- $M_☾$, Mittlere Anomalie des Mondes
- i, Neigung des Mondäquators gegen den Erdäquator
- ☊′, Aufsteigender Knoten des Mondäquators auf dem Erdäquator
- Δ, Stück des Mondäquators zwischen Ekliptik und Erdäquator

☋, der aufsteigende Knoten des Mondäquators auf der Ekliptik, ist gleich dem absteigenden Knoten der Mondbahn, also

$$☋ = ☊ \pm 180^\circ.$$

Vom Jahrgang 1926 ab sind die Brownschen Mondtafeln verwendet.

Die Größen i, Δ und Ω' berechnen sich aus:

$$\sin\frac{1}{2}(\Delta+\Omega')\cos\frac{1}{2}i = \cos\frac{1}{2}(\varepsilon-J)\sin\frac{1}{2}\mho$$

$$\cos\frac{1}{2}(\Delta+\Omega')\cos\frac{1}{2}i = \cos\frac{1}{2}(\varepsilon+J)\cos\frac{1}{2}\mho$$

$$\sin\frac{1}{2}(\Delta-\Omega')\sin\frac{1}{2}i = \sin\frac{1}{2}(\varepsilon-J)\sin\frac{1}{2}\mho$$

$$\cos\frac{1}{2}(\Delta-\Omega')\sin\frac{1}{2}i = \sin\frac{1}{2}(\varepsilon+J)\cos\frac{1}{2}\mho;$$

dabei ist J, die Neigung des Mondäquators gegen die Ekliptik, nach F. Hayn (Astr. Nachr. Bd. **199**, S. 263) zu $J = 1^\circ\,32'\,20''$ angenommen worden. Die Zahlen geben die Lage des mittleren Mondäquators (ohne physische Libration).

Die auf S. 292* gemachten Angaben über die Elemente der Mondbahn und des Mondäquators werden, teilweise in Verbindung mit den Größen $L_\odot$ und $M_\odot$ auf S. 38, zu verschiedenen Zwecken verwendet:

1) Als Argumente für die Berechnung der Reduktionsgrößen A, B, C, D, E, A', B'.

2) Bei Bestimmung der selenographischen Koordinaten von Punkten der Mondoberfläche (siehe darüber den folgenden Abschnitt).

3) Bei Berechnung der *optischen* und *physischen* Libration des Mondes.

a) Für die Berechnung der *optischen* Libration des Mondes sind alle nötigen Angaben in den Erläuterungen zu den Hilfstafeln unter Nr. 7 (S. 377*) gemacht.

b) Die Beträge der *physischen* Mondlibration in selenographischer Länge, der Neigung des Mondäquators und seinem aufsteigenden Knoten auf der Ekliptik τ, ϱ, σ haben die Werte:

$$\tau = -\;13''\sin M_☾ + 65''\sin M_\odot + 26''\sin 2\,(L_☾ - M_☾ - \Omega)$$

$$\varrho = -106''\cos M_☾ + 34''\cos(2\,L_☾ - M_☾ - 2\,\Omega) - 11''\cos 2\,(L_☾ - \Omega)$$

$$\sigma\sin J = -108''\sin M_☾ + 34''\sin(2\,L_☾ - M_☾ - 2\,\Omega) - 11''\sin 2\,(L_☾ - \Omega)$$

Diese Zahlenangaben beruhen auf der Annahme $f = 0.73$, worüber F. Hayn (Astr. Nachr. Bd. **199**, S. 264) einzusehen ist.

Ephemeride für den Mondkrater Mösting A.

(S. 293*—297*).

Die Ephemeride des Mondkraters Mösting A. dient zwei verschiedenen Zwecken: erstens zur genauen Bestimmung von Mondörtern am Himmel durch Beobachtung des Kraters, zweitens zur Bestimmung der selenographischen Koordinaten weiterer Punkte der Mondoberfläche durch deren mikrometrischen Anschluß an Mösting A.

Sie gilt für 0^h Welt-Zeit und enthält für die Tage, an welchen Mösting A innerhalb der Beleuchtungsgrenze liegt, die Unterschiede $\alpha_☾ - \alpha_k$ in Rektaszension und $\delta_☾ - \delta_k$ in Deklination zwischen der

Mondmitte und dem Krater, vom Erdmittelpunkt aus gesehen, sowie den Logarithmus des Sinus der Äquatorial-Horizontalparallaxe p_k des Kraters, welche von der des Mondes $p_☾$ zu unterscheiden ist, mit den zugehörigen Differenzen.

Zur Anwendung der Ephemeride auf Beobachtungen des Kraters interpoliere man $\alpha_☾ - \alpha_k$, $\delta_☾ - \delta_k$ und $\log \sin p_k$ mit der Beobachtungszeit. Fügt man alsdann $\alpha_☾ - \alpha_k$ und $\delta_☾ - \delta_k$ zum geozentrischen Ort des Kraters (die Parallaxe wird mit p_k und δ_k, der Deklination des Kraters, berechnet), so hat man die geozentrische Rektaszension und Deklination des Mondes für die Beobachtungszeit.

Hat man einen Punkt der Mondoberfläche mikrometrisch an Mösting A. angeschlossen, so bestimme man zunächst die topozentrischen, d. h. mit Parallaxe behafteten Koordinatendifferenzen $\alpha'_☾ - \alpha'_k$ und $\delta'_☾ - \delta'_k$ zwischen Mondmittelpunkt und Mösting A. aus folgenden Identitäten:

$$\alpha'_☾ - \alpha'_k = \alpha_☾ - \alpha_k + (\alpha'_☾ - \alpha_☾) - (\alpha'_k - \alpha_k)$$
$$\delta'_☾ - \delta'_k = \delta_☾ - \delta_k + (\delta'_☾ - \delta_☾) - (\delta'_k - \delta_k).$$

Verbindet man die so erhaltenen topozentrischen Abstände zwischen der Mondmitte und Mösting A. mit den mikrometrischen Messungen zwischen Mösting A. und einem zweiten Krater, so erhält man die topozentrische Lage des letzteren gegen die Mondmitte und kann hieraus mit Hilfe von $\alpha'_☾$ und $\delta'_☾$ und den Angaben auf Seite 292* die selenographische Länge und Breite des zweiten Kraters berechnen. Hierzu dienen die im folgenden angeführten Formeln.

Bezeichnet man mit α' und δ' die topozentrische AR. und Dekl. des an Mösting A. angeschlossenen Kraters, so hat man:

$$s \sin \pi_m = (\alpha' - \alpha'_☾) \cos \frac{1}{2}(\delta' + \delta'_☾)$$
$$s \cos \pi_m = \delta' - \delta'_☾$$
$$\pi = \pi_m - \frac{1}{2}(\alpha' - \alpha'_☾) \sin \frac{1}{2}(\delta' + \delta'_☾)$$
$$\sin(K + s) = \sin s \operatorname{cosec} h'.$$

h' ist der Abstand des Kraters vom Mondschwerpunkt, gesehen vom Beobachtungsort aus, der aus h, dem vom Erdmittelpunkt aus gesehenen Abstand, durch Anbringen der Parallaxe gewonnen wird. Ist die Entfernung des Kraters vom Mondschwerpunkt gänzlich unbekannt, so möge für h der aus Sternbedeckungen folgende Wert des Mondhalbmessers 15′ 32″.59 (nach J. Peters, Astr. Nachr. Bd. **138**, S. 147) eingesetzt werden.

$$\sin d = -\sin \delta'_☾ \cos K + \cos \delta'_☾ \sin K \cos \pi$$
$$\cos d \cos(a - \alpha'_☾) = -\cos \delta'_☾ \cos K - \sin \delta'_☾ \sin K \cos \pi$$
$$\cos d \sin(a - \alpha'_☾) = \sin K \sin \pi$$
$$\sin \beta = \sin d \cos i - \cos d \sin i \sin(a - ☊')$$
$$\cos \beta \sin \lambda' = \sin d \sin i + \cos d \cos i \sin(a - ☊')$$
$$\cos \beta \cos \lambda' = \cos d \cos(a - ☊')$$
$$\lambda = \lambda' - 180° - L_☾ - (\Delta - ☋).$$

Die so erhaltenen Werte von λ und β beziehen sich auf den mittleren (vom Einfluß der physischen Libration freien) Mondäquator; die Transformation auf den wahren erfolgt durch die Korrektionen:

$$d\lambda = +13'' \sin M_{☾} - 65'' \sin M_{\odot} - 26'' \sin 2(L_{☾} - M_{☾} - \Omega)$$
$$+ \operatorname{tg} \beta [-106'' \cos (L_{☾} - M_{☾} - \Omega + \lambda) + 34'' \cos (L_{☾} - M_{☾} - \Omega - \lambda)$$
$$- 11'' \cos (L_{☾} - \Omega - \lambda)]$$
$$d\beta = +108'' \sin (L_{☾} - M_{☾} - \Omega + \lambda) + 34'' \sin (L_{☾} - M_{☾} - \Omega - \lambda)$$
$$- 11'' \sin (L_{☾} - \Omega - \lambda)$$

Bringt man diese Korrektionen $d\lambda$ und $d\beta$ an λ und β an, so erhält man die selenographischen Koordinaten des Kraters:

$$\lambda_0 = \lambda + d\lambda, \qquad \beta_0 = \beta + d\beta$$

Der Berechnung der Ephemeride des Kraters Mösting A. liegen folgende von F. Hayn ermittelten Konstanten (Astr. Nachr. Bd. **199**, S. 263) zugrunde:

$$\lambda_0 = -5^\circ\ 10'\ 7'', \qquad \beta_0 = -3^\circ\ 11'\ 2''$$
$$h = 15'\ 33''.4$$

Für die Reduktion auf den mittleren Mondäquator wurden die Werte angenommen:

$$d\lambda = -13'' \sin M_{☾} + 65'' \sin M_{\odot} + 26'' \sin 2(L_{☾} - M_{☾} - \Omega)$$
$$d\beta = -108'' \sin (L_{☾} - M_{☾} - \Omega + \lambda_0) - 34'' \sin (L_{☾} - M_{☾} - \Omega - \lambda_0)$$
$$+ 11'' \sin (L_{☾} - \Omega - \lambda_0),$$

so daß die auf den mittleren Mondäquator bezogenen selenographischen Koordinaten des Kraters Mösting A. sind:

$$\lambda = \lambda_0 + d\lambda, \qquad \beta = \beta_0 + d\beta.$$

Die Formeln zur Berechnung der Ephemeride siehe in den Erläuterungen zum Jahrbuch 1916.

Jupitertrabanten (S. 298*—299*).

Die Seiten 298* und 299* enthalten die Zeitangaben (in Welt-Zeit) für die Verfinsterungen der vier hellen Jupitertrabanten in dem Schattenkegel des Jupiter; Ein- und Austritte sind durch beigefügtes E. und A. unterschieden.

Saturnsring (S. 300*—303*, 316*).

Die Angaben für die scheinbare Größe des Saturn und für die Lage und Größe des Saturnsringes haben die folgende Bedeutung:

α Große Achse des Saturn.

β Kleine Achse des Saturn.

p_a Phase; positiv, wenn der Ostrand, negativ, wenn der Westrand verdunkelt ist.

a Große Achse der Ringellipse.

b Kleine Achse der Ringellipse; positiv, wenn die nördliche, negativ, wenn die südliche Fläche des Ringes sichtbar ist.

U' Heliozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes in der Ekliptik an.

B' Erhöhungswinkel der Sonne über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.

P' Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Längenkreise; östlich positiv, westlich negativ.

U Geozentrische Länge des Saturn, gezählt auf der Ringebene vom aufsteigenden Knoten des Ringes im Erdäquator an.

B Erhöhungswinkel der Erde über der Ringebene vom Saturn aus gesehen; nördlich positiv, südlich negativ.

P Winkel der kleinen Achse der Ringellipse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise; östlich positiv, westlich negativ.

N Aufsteigender Knoten der Ringebene im Erdäquator, gezählt vom Äquinoktium an.

J Neigung der Ringebene gegen den Erdäquator.

ω Entfernung der Ekliptik vom Erdäquator, gemessen auf der Ringebene.

Es liegen folgende Bestimmungen nach H. Struve zugrunde:

Durchmesser des Saturn in der Entfernung 9.53887

Äquatorial 17″.47 Polar 15″.65

Lage des Saturnsringes gegen die Ekliptik und das Äquinoktium von 1889.25

$$\Omega_1 = 167^\circ\ 57'.0 \quad \text{und} \quad i_1 = 28^\circ\ 5'.6;$$

Durchmesser des Ringes in der Entfernung 9.53887

$$2R = 39''.35$$

Saturnstrabanten (S. 304*—326*).

Die Berechnungen über die Saturnstrabanten sind mit den von H. Struve in:

I. Beobachtungen der Saturnstrabanten, 1. Abteilung, 1. Supplementheft zu den »*Observations de Poulkova*«;

II. *Publications de l'Observatoire Central Nicolas*, Série II, Vol. **XI** abgeleiteten, in Astr. Nachr. Bd. **162**, S. 325 u. ff. und von G. Struve in Veröff. Berlin-Babelsberg **VI.** 1 weiter verbesserten Elementen durchgeführt. Für die Halbachsen der 6 inneren Trabanten sind die auf Seite 239 der zweiten Abhandlung mittels der Saturnsmasse $= \frac{1}{3500}$ rechnerisch abgeleiteten Werte angenommen.

Die den Ephemeriden zugrunde liegenden Elemente sind:

MIMAS (II, Seite 195)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 127^\circ\ 19'.0$

$n = 381^\circ.9945$

$\delta l = -44^\circ.243 \sin(116^\circ.46 + 5^\circ.075\,t)$

$\qquad - 0^\circ.75 \sin 3\,(116^\circ.46 + 5^\circ.075\,t)$

$l_1 = E_0 + n t_d + \delta l$

$\Theta = 54^\circ.7 - 365^\circ.3\,t$

$\gamma = 1^\circ\ 36'.5$

$\Pi_1 = 107^\circ.2 + 365^\circ.3\,t$

$e = 0.0190$

$a = 26''.814$

ENCELADUS (II, Seite 183)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 199^\circ\ 19'.8$

$n = 262^\circ.73199$

$\delta l = + 11'.24 \sin(143^\circ + 92^\circ.4\,t)$

$\qquad + 20'.0 \sin(75^\circ + 29^\circ.3\,t)$

$l_1 = E_0 + n t_d + \delta l$

$\Theta = 328^\circ - 152^\circ.7\,t$

$\gamma = 1'.4$

$\Pi_1 = 308^\circ.38 + 123^\circ.43\,t$

$e = 0.0046$

$a = 34''.401$

TETHYS (II, Seite 195)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 284^\circ\ 31'.0$

$n = 190^\circ.69795$

$\delta l = + 118'.90 \sin(116^\circ.46 + 5^\circ.075\,t)$

$\qquad + 2'.02 \sin 3\,(116^\circ.46 + 5^\circ.075\,t)$

$l_1 = E_0 + n t_d + \delta l$

$\Theta = 110^\circ.55 - 72^\circ.5\,t$

$\gamma = 1^\circ\ 4'.36$

$e = 0.0000$

$a = 42''.586$

DIONE (II, Seite 183)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$E_0 = 253^\circ\ 51'.4$

$n = 131^\circ.534955$

$\delta l = - 1'.21 \sin(143^\circ + 92^\circ.4\,t)$

$\qquad - 2'.13 \sin(75^\circ + 29^\circ.3\,t)$

$l_1 = E_0 + n t_d + \delta l$

$$\Theta = 276^\circ - 31^\circ.0\, t$$
$$\gamma = 4'.0$$
$$\Pi_1 = 165^\circ + 31^\circ.0\, t$$
$$e = 0.0020$$
$$a = 54''.543$$

RHEA (G. Struve, Berlin-Bbg. VI, 1, Seite 16)

Epoche: 1889 April 0.0 Mittl. Zt. Grw.

$$E_0 = 358^\circ\ 23'.8$$
$$n = 79^\circ.690087$$
$$E - E_0 = + 4'.95 \sin(343^\circ.4 - 10^\circ.1\, t)$$
$$l = E_0 + n t_d + (E - E_0)$$
$$(\Omega - \Omega_1) \sin i_1 = 20'.74 \sin(343^\circ.36 - 10^\circ.10 t) - 0'.38 + 1'.00 \sin(48^\circ.5 - 0^\circ.50 t)$$
$$i - i_1 = 20'.74 \cos(343^\circ.36 - 10^\circ.10 t) - 2'.79 + 1'.00 \cos(48^\circ.5 - 0^\circ.50 t)$$
$$\Pi = 276^\circ.25 + 0^\circ.53\, t + 17^\circ.64 \sin[9^\circ.5\ (t - 1879.59)]$$
$$e = 0.00098 + 0.00030 \cos[9^\circ.5\ (t - 1879.59)]$$
$$a = 76''.170$$

Ω_1 und i_1 bezeichnen die Lage des Saturnsringes.

TITAN (II, Seite 172)

Epoche: 1890 Jan. 0.0 Mittl. Zt. Grw.

$$E_0 = 260^\circ\ 25'.1$$
$$n = 22^\circ.577009$$
$$E - E_0 = + 4'.05 \sin(47^\circ.8 - 0^\circ.51\, t)$$
$$l = E_0 + n t_d + (E - E_0)$$
$$\Omega = 167^\circ\ 51'.2 + 35'.84 \sin(47^\circ.8 - 0^\circ.506\, t) + 0'.837\, t$$
$$i = 27^\circ\ 28'.4 + 16'.88 \cos(47^\circ.8 - 0^\circ.506\, t)$$
$$\Pi = 276^\circ\ 15' + 31'.7\, t + 22'.0 (\sin 2g - \sin 2g_0)$$
$$e = 0.02886 + 0.000186\ (\cos 2g_0 - \cos 2g)$$
$$g = \Pi - \Omega - 4^\circ.5$$
$$g_0 = g \text{ für } t = 0$$
$$a = 176''.578$$

HYPERION (II, Seite 290)

Epoche: 1890 Jan. 0.0 Mittl. Zt. Grw.

$$E_0 = 304^\circ.53$$
$$n = 16^\circ.919983$$
$$\delta l = 9^\circ.16 \sin(200^\circ.5 + 0^\circ.56206\, t_d)$$
$$l = E_0 + n t_d + \delta l$$

Äquinoktium 1890.0. Epoche 1890.0 + t

$$\Omega = 167^\circ\ 49'.7 + 42'.4 \sin(47^\circ.8 - 0^\circ.50 t) + 78'.1 \sin(121^\circ.7 - 2^\circ.0 t)$$
$$i = 27^\circ\ 20'.8 + 19'.6 \cos(47^\circ.8 - 0^\circ.50 t) + 36'.2 \cos(121^\circ.7 - 2^\circ.0 t)$$

Epoche und Äquinoktium: 1888.890 + t

$$\Pi = 276^\circ.50 - 18^\circ.663\,t + 14^\circ.0 \sin(-0^\circ.84 + 19^\circ.191\,t) - 1^\circ.5 \sin(-1^\circ.68 + 38^\circ.382\,t)$$

$$e = 0.1043 + 0.0230 \cos(-0^\circ.84 + 19^\circ.191\,t) + \delta e$$

$$e\delta e = -0.00044 \cos(200^\circ.5 + 0^\circ.56206\,t_d)$$

$$a = 213''.92 + \delta a$$

$$\delta a = -0.00354\,a \cos(200^\circ.5 + 0^\circ.56206\,t_d).$$

JAPETUS (I, Seite 87; II, Seite 139)

Epoche: 1885 Sept. 1.0 Mittl. Zt. Grw.

$E_0 = 75^\circ\ 26'.4$ $\quad i = 18^\circ\ 28'.3 - 0'.54\,t$

$n = 4^\circ.537997$ $\quad \Pi = 354^\circ\ 30' + 7'.9\,t$

$l = E_0 + n t_d$ $\quad e = 0.02836 + 0.000015\,t$

$\Omega = 142^\circ\ 12'.4 - 1'.48\,t$ $\quad a = 514''.59$

Hierin bedeuten:

l_1, l = Mittlere Länge in der Bahn
n = Tropische mittlere tägliche Bewegung
δl = Libration
t_d = Anzahl der Tage seit der Anfangsepoche
t = Anzahl der Jahre seit der Anfangsepoche
Θ = Knoten auf dem Saturnsäquator
Ω = Knoten auf der Ekliptik
γ = Neigung der Trabantenbahn gegen den Saturnsäquator
i = Neigung der Trabantenbahn gegen die Ekliptik
Π_1, Π = Perisaturnium
e = Exzentrizität
a = Halbachse der Trabantenbahn in der mittleren Entfernung $(\Delta) = 9.53887$

l_1, Π_1 und Θ werden gezählt vom Äquinoktium aus in der Ekliptik, weiter im Saturnsäquator und dann erst in der Trabantenbahn, l und Π vom Äquinoktium aus in der Ekliptik und weiter in der Trabantenbahn.

Zunächst sind für die sechs inneren Trabanten auf den Seiten 304* bis 312* die Hilfsmittel gegeben, um in bequemer Weise ihre Positionen ableiten zu können. Sieht man hierbei von den Neigungen γ ab, so erhält man die rechtwinkligen Koordinaten x und y des Trabanten in bezug auf ein Achsenkreuz, dessen Anfangspunkt im Mittelpunkt des Saturn gelegen ist, dessen X-Achse parallel der großen Achse des Ringes verläuft, positiv, wenn östlich, negativ, wenn westlich vom Saturn, und dessen positive Y-Achse mit dem durch den Saturnsmittelpunkt gehenden Stundenkreise den Winkel P einschließt, aus den Gleichungen:

$$x = \frac{a(\Delta)}{\Delta}\,\frac{1}{1+\zeta}\,\frac{r}{a}\,\sin(u-U)$$

$$y = \frac{a(\Delta)}{\Delta}\,\frac{1}{1+\zeta}\,\frac{r}{a}\,\sin B \cos(u-U).$$

$(\varDelta) = 9.53887$ bezeichnet den mittleren Wert der Entfernung Sonne—Saturn, $\varDelta$ ist die Entfernung Erde—Saturn, $u = L + (v - M)$ ist die wahre Länge des Trabanten vom Erdäquator an gezählt. Die Größen L und $(v - M)$ sind auf den Seiten 304*—312* und 314*—315* zu finden. $\log \frac{1}{1+\zeta}$ ist auf Seite 316* enthalten.

Ist genaueste Ortsbestimmung erforderlich, so darf man bei Mimas, Tethys und Rhea die Neigungen gegen den Saturnsäquator, da sie schon merklichere Werte annehmen, nicht mehr vernachlässigen; x und y ergeben sich dann aus:

$$x = \frac{a(\varDelta)}{\varDelta} \frac{1}{1+\zeta} \frac{r}{a} \sin(u - U)$$

$$y = \frac{a(\varDelta)}{\varDelta} \frac{1}{1+\zeta} \frac{r}{a} \sin B \,[\cos(u - U) + \sin\gamma \operatorname{cotg} B \sin(u - \vartheta)].$$

Die Werte von ϑ, der Länge des aufsteigenden Knotens der Trabantenbahn auf dem Saturnsäquator, gezählt vom Schnittpunkte des Saturnsäquators mit dem Erdäquator, finden sich auf Seite 316*; auch ist hier für Rhea γ, weil stärker mit der Zeit veränderlich, in Intervallen von 16 Tagen gegeben.

Will man aus x und y die Rektaszensions- und Deklinationsdifferenzen bestimmen, so dienen dazu die Gleichungen:

$$s \sin(p - P) = x$$

$$s \cos(p - P) = y$$

$$\varDelta\alpha = \alpha_{tr} - \alpha_{pl} = \frac{1}{15} s \sin p \sec \delta_{tr}$$

$$\varDelta\delta = \delta_{tr} - \delta_{pl} = s \cos p.$$

Auf den Seiten 317*—322* finden sich für die äußeren Trabanten Hyperion und Japetus, außer den Hilfsgrößen U, B und P, die genäherten Rektaszensions- und Deklinationsunterschiede gegen den Saturn in dem Sinne Trabant minus Planet.

Die aus den Angaben des Berliner Jahrbuchs ermittelten Trabantenörter sind auf das mittlere Äquinoktium der Epoche bezogen.

Zum Schluß enthalten die Seiten 323*—326* die Zeitangaben (in Welt-Zeit) für die östlichen Elongationen von Mimas, Enceladus, Tethys, Dione, Rhea, ferner für die östlichen und westlichen Elongationen $(u - U = \pm 90^\circ)$ und für die oberen und unteren Konjunktionen $(u - U = 0^\circ, 180^\circ)$ von Titan, Hyperion und Japetus mit Saturn; diese Zeitangaben für die Elongationen und Konjunktionen sind bereits für Lichtzeit korrigiert, also ohne weiteres mit den Beobachtungen vergleichbar.

Konstellationen (S. 327*—328*).

In der Übersicht der Konstellationen des Jahres 1931 sind die hauptsächlichsten Planeten-Konstellationen gegeneinander und gegen Sonne und Mond, sowie die Angaben der Epochen, zu welchen

sich die Planeten in gewissen Hauptpunkten ihrer Bahn und ihres synodischen Laufes befinden, zusammengestellt. Die Bedeutung der hier verwendeten Zeichen siehe Seite VIII des Vorworts. — Die Konjunktionen der Planeten mit dem Mond und ihre gegenseitigen sind als Konjunktionen in AR. zu verstehen. Die Angaben über Konjunktion und Opposition der Planeten mit der Sonne entsprechen den Zeiten, zu denen der Längenunterschied zwischen Planet und Sonne 0° oder 180° ist.

Hilfstafeln (S. 329*—348*).

Es folgt eine Reihe von häufig gebrauchten Hilfstafeln.

1) Tafeln für Präzessionswerte (S. 329*—331*).

a) Präzession in Rektaszension und Deklination (Seite 329*)

$$p_\alpha = m + \tfrac{1}{15} n \sin\alpha \operatorname{tg}\delta$$
$$p_\delta = n \cos\alpha$$

b) Präzessionswerte m, n, ψ, π, Π und ε, die mittlere Schiefe der Ekliptik (Seite 329*).

Mit diesen Werten berechnet sich die Präzession für die Elemente einer Bahnebene im System der Ekliptik nach:

$$p_\Omega = \psi - \pi \operatorname{cotg} i \sin(\Pi - \Omega)$$
$$p_i = -\pi \cos(\Pi - \Omega)$$
$$p_\omega = \pi \operatorname{cosec} i \sin(\Pi - \Omega)$$

und im System des Äquators nach:

$$p_{\Omega'} = m - n \operatorname{cotg} i' \cos\Omega'$$
$$p_{i'} = -n \sin\Omega'$$
$$p_{\omega'} = n \cos\Omega' \operatorname{cosec} i'$$

c) Präzession in Länge und Breite (Seite 330*—331*).

$$p_\lambda = \psi + \pi \operatorname{tg}\beta \cos(\Pi - \lambda)$$
$$p_\beta = \pi \sin(\Pi - \lambda)$$

Den Tafeln a) und c) liegen die Präzessionswerte für 1925.0 zugrunde. Über die Bedeutung der Bezeichnungen und die Zahlenwerte vergleiche die Erläuterungen zum Jahrbuch für 1916.

2) Tafel des halben Tagbogens (S. 332*—333*), berechnet mit der Horizontalrefraktion 34'.9 für geographische Breiten von + 30° bis + 60° und Deklinationen von — 30° bis + 30°.

3) Reduktionstafeln für die Auf- und Untergangszeiten der Sonne und des Mondes (S. 334*—337*). Sie geben die Reduktion der für + 50° Breite gültigen Zeiten, wie sie in den Ephemeriden enthalten sind, auf geographische Breiten zwischen +30° und +60° und sind mit der Horizontalrefraktion 34'.9 für das Erscheinen oder Verschwinden des oberen Gestirnsrandes gerechnet.

4) Eine Tafel für die Ermittelung eines Datums in der Julianischen Periode (Seite 338*—341*). Die Tafel besteht aus zwei Teilen: Der erste Teil (S. 338*—339*) gibt in vierjährigen Schaltperioden für die Jahre 0 bis 2000 die Anzahl der am 0. Januar, 12^h Welt-Zeit, seit Anfang der Julianischen Periode verflossenen Tage. Als Ergänzung gibt die Hilfstafel am Fuß der Seite die Anzahl der am 0. jedes Monats, 12^h Welt-Zeit, seit Beginn der Schaltperiode verflossenen Tage. Man gehe bis zum 4. Oktober des Jahres 1582 mit dem Datum des Julianischen, für spätere Jahre mit dem Datum des Gregorianischen Kalenders in die Tafel ein. Der zweite Teil (S. 340*—341*) gibt für die Jahre 1860—1939 unmittelbar die Anzahl der im Gregorianischen Kalender am 0. jedes Monats, 12^h Welt-Zeit, seit Beginn der Julianischen Periode verflossenen Tage.

5) Hilfstafeln zur Verwandlung von Mittlerer Zeit in Sternzeit (S. 342*) und von Sternzeit in Mittlere Zeit (S. 343*).

6) Eine Tafel zur Verwandlung von Stunden, Minuten und Sekunden in Dezimalteile des Tages und umgekehrt (S. 344*—345*).

7) Die Tafel zur Berechnung der optischen Mondlibration (S. 346*—347*) gibt mit dem Argument $\lambda - \Omega$ die Werte $\Delta\lambda$, a und B entsprechend den Gleichungen:

$$\Delta\lambda = \frac{1}{\operatorname{arc} 1'} \operatorname{tang}^2 \frac{1}{2} J \sin 2(\lambda - \Omega)$$

$$a = -\cos(\lambda - \Omega) \sin J$$

$$\operatorname{tang} B = -\sin(\lambda - \Omega) \operatorname{tang} J$$

J = Neigung des Mondäquators gegen die Ekliptik.

Ω = Länge des aufsteigenden Knotens der Mondbahn auf der Ekliptik (s. S. 292*).

λ, β = Länge und Breite des Mondmittelpunktes, berechnet für den Beobachtungsort.

Bezeichnen noch $L_{☾}$ die mittlere Länge des Mondes, l' und b' die optische Libration der Mondmitte in selenographischer Länge und Breite, so ist:

$$l' = \lambda - L_{☾} + \Delta\lambda - a(B - \beta)$$

$$b' = B - \beta$$

Der Winkel C, welchen der Mondmeridian des Mittelpunktes der scheinbaren Mondscheibe mit dem Stundenkreise bildet, ergibt sich aus der Gleichung:

$$\sin C = -\sin i \frac{\cos(L_{☾} + l' + \Delta - ☋)}{\cos \delta_{☾}} = -\sin i \frac{\cos(\alpha_{☾} - \Omega')}{\cos b'},$$

worin $\alpha_{☾}$, $\delta_{☾}$ Rektaszension und Deklination des Mondmittelpunktes, gesehen vom Beobachtungsort aus, bezeichnen; die anderen vorkommenden Größen i, Δ, ☋ und Ω' haben schon auf S. 367* ihre Erklärung gefunden.

8) Eine Tafel der Hilfsgrößen s und c (S. 348*) zur Berechnung der geozentrischen Breite φ' und der geozentrischen Entfernung ϱ eines Erdortes, ausgedrückt in Einheiten der großen Halbachse des Erdellipsoids, aus der geographischen Breite φ nach den Formeln:

$$\varrho \sin \varphi' = s \sin \varphi$$
$$\varrho \cos \varphi' = c \cos \varphi$$

Darin haben s und c die Bedeutung:

$$s = \frac{1 - e^2}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad c = \frac{1}{\sqrt{1 - e^2 \sin^2 \varphi}}, \quad e = \sqrt{2\alpha - \alpha^2}$$

Gemäß den Beschlüssen der Pariser Ephemeridenkonferenz von 1911 ist dabei die Abplattung $\alpha = \frac{1}{297.0}$ angenommen.

Koordinaten der Sternwarten (S. 349*—355*).

Die Seiten 349*—355* enthalten die geographischen und geozentrischen Koordinaten der Sternwarten.

Die Seehöhen sind in allen Fällen angegeben, wo sie sich einigermaßen sicher ermitteln ließen.

Die geographischen Längen sind auf den Meridian von Greenwich bezogen und dem entsprechend gibt die »Korrektion der Sternzeit« die Differenz: Orts-Sternzeit minus Greenwicher Sternzeit an.

Die geozentrischen Koordinaten sind den Beschlüssen der Pariser Ephemeridenkonferenz vom Oktober 1911 gemäß unter Annahme der Abplattung 1 : 297.0 berechnet.

Bei Berechnung von $\log \varrho$ ist die Seehöhe berücksichtigt.

Normalzeiten der wichtigeren Länder (S. 356*).

Auf S. 356* sind die in den wichtigeren Ländern eingeführten Normalzeiten in zwei Gruppen zusammengestellt, je nachdem sie an den Meridian von Greenwich angeschlossen sind oder einen eigenen Landes-Meridian zugrunde legen.

Berichtigungen.

Jahrbuch 1926, S. 111	Jupiter, März 29. Die heliozentrische Länge ist 309° anstatt 310°.
Jahrbuch 1927, S. 394	Spalte *l(i)*. Das Vorzeichen des letzten Wertes ist — anstatt +.
Jahrbuch 1930, S. 92*	In der Überschrift lies 1930 anstatt 1928.
S. 289*	Zeile 17 und 19 muß es heißen: Übergang der zentralen, ringförmigen in totale Verfinsterung und Übergang der totalen in zentrale, ringförmige Verfinsterung.
Jahrbuch 1931, S. 19*	Stern 680. In der Spalte Spektrum lies A 3.
S. 22*	Stern 801 heißt [4 Pisc. austr.]
S. 23*	Stern 876. Die jährliche Eigenbewegung in Deklination ist —53.
S. 67*	Stern 269) ζ Geminorum, tg δ = +0.377 anstatt —0.377.

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